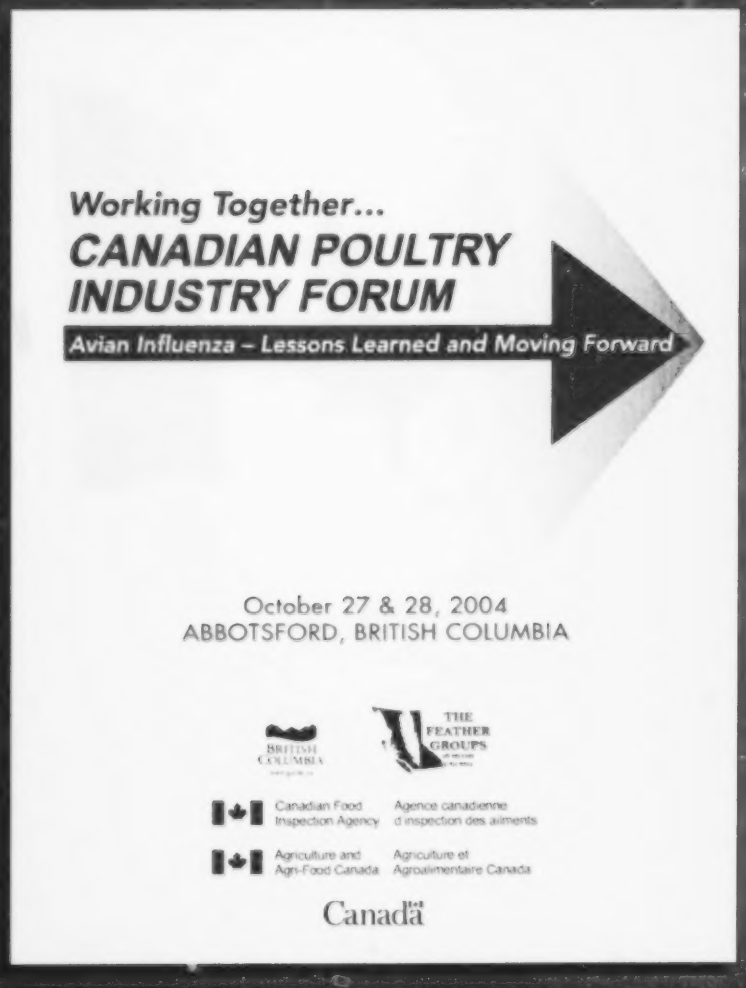
Report on the CANADIAN POULTRY INDUSTRY FORUM

December 2004



Report on the
CANADIAN POULTRY INDUSTRY FORUM

December 2004

November 30, 2004

Mr. Rory McAlpine, Deputy Minister
BC Ministry of Agriculture, Food and Fisheries

Mr. Ray Nickel, President
British Columbia Poultry Committee

Mr. Richard Fadden, President
Canadian Food Inspection Agency

Dear Sirs:

RE: CANADIAN POULTRY INDUSTRY FORUM REPORT

Attached is the final report of the Canadian Poultry Industry Forum…Avian Influenza, Lessons Learned and Moving Forward, which conducted a detailed examination of what worked well, what did not work well and what improvements are needed to manage such an emergency in the future.

In developing and delivering the Forum, more than 180 individuals and organizations shared their experiences (lessons learned) and recommendations for moving forward to be better able to manage such an outbreak in BC and Canada in the future. These consultations, as well as direction provided by the forum participants, have guided the development of the final recommendations.

Ross Husdon, BSA, MSc., P.Ag.
Forum Coordinator

Lynn Elwell
Forum Operations Coordinator

ACKNOWLEDGEMENTS

Thanks to the following for their generous support and financial contributions to the Canadian Poultry Industry Forum:

British Columbia Ministry of Agriculture, Food and Fisheries (MAFF)

Agriculture and Agri-Food Canada (AAFC)

British Columbia Provincial Emergency Program (PEP)

British Columbia Ministry of Health Services (MOHS)

Canadian Food Inspection Agency (CFIA)

Canadian Animal Health Coalition (CAHC)

Canadian Egg Marketing Agency (CEMA)

Chicken Farmers of Canada (CFC)

Canadian Turkey Marketing Agency (CTMA)

Canadian Broiler Hatching Egg Marketing Agency (CBHEMA)

Canadian Poultry and Egg Processors Council (CPEPC)

National Farm Products Council (NFPC)

Table of Contents

Acknowledgements iv

Executive Summary 1

1. The Avian Influenza Outbreak – Overview 5

2. The Canadian Poultry Industry Forum 7
- Introduction 7
- Preparing for the Forum 7
- Conveners and Committees 7
- Objectives and Outcomes 8
- Forum Process and Procedures 8

3. Lessons Learned and Moving Forward – Speakers And Panels 11
- Introduction 11
- Context Setting and Guidelines From Conveners 11
- Chronology 12
- Speakers 12
- Panels 18

4. Forum Outcomes 33
- Panel 1 Outcomes 33
- Panel 2 Outcomes 34
- Panel 3 Outcomes 34
- Panel 4 Outcomes 35
- Summary of Recommendations from the Forum 36

5. Forum Conclusion 37

APPENDIX A
Chronology of Key Events 39

APPENDIX B.
Forum Agenda 57

APPENDIX C.
Participants 59

NOTES 67

1. The Avian Influenza Outbreak – Overview

The Avian Influenza virus is present worldwide. In the spring and summer of 2004, a highly pathogenic Avian Influenza (HPAI) outbreak of unprecedented Canadian proportion, occurred in the Fraser Valley of British Columbia. The outbreak started on February 6, 2004 and "ended" on July 9, 2004 when all premises were eligible to be restocked.

Controlling the spread of the disease and preventing the possible transmission to humans was an unprecedented challenge. The disease spread from farm to farm, as plans and resources were put into operation to contain and eradicate HPAI. The emergency response operation carried out by governments, industry and area residents was eventually successful in eradicating the disease from domestic birds in the affected area.

There were a total of 42 commercial and 11 backyard flocks infected and of these, 28 commercial and 2 backyard flocks were confirmed to be infected with H7N3 Avian Influenza virus. To contain and eradicate the virus, 410 commercial poultry farms and 553 backyard flocks were depopulated totaling 14.9 million commercial and 18 thousand backyard birds. The economic cost of the outbreak is estimated at over 300 million dollars.

2. The Canadian Poultry Industry Forum – October 27–28, 2004

As a result of the AI outbreak, senior officials in the BC Ministry of Agriculture, Food and Fisheries (BCMAFF), the Canadian Food Inspection Agency (CFIA) and the BC Poultry Industry established a process to develop the Canadian Poultry Industry Forum. The theme of the Forum was "Avian Influenza…Lessons Learned and Moving Forward". The purpose of the Forum and related preparatory focus groups and workshops was to evaluate the overall response to the emergency and make recommendations for improvement.

To prepare for the Forum, the CFIA held extensive focus groups that reviewed lessons learned….what worked, what didn't work and what improvements were needed. Workshops were also held with Provincial Government Agencies and the Poultry Industry and generally followed the same format as the CFIA focus groups. The information and suggested actions gathered at these sessions was included in the various presentations and recommendations at the Forum.

In addition to the focus groups and workshops, a steering committee met regularly and consulted with conveners to keep Forum development activities moving in the right direction.

More than 180 participants from across Canada with representation from all levels of government and industry, attended the Forum…the participants came to the Forum to share experiences and recommenda-

105-06034/

tions. Many came to the Forum to learn from BC's experience and take the information back to their Province. Views were openly exchanged on how future operations should be strengthened. Questions were collected at the Forum and answered by expert panel members and speakers. Participants also had opportunities to exchange information during coffee and meal breaks.

The two day agenda included introductions, context setting, closing remarks and commitments for moving ahead by the three Conveners. The Mayor of Abbotsford provided opening remarks on the first day and by the Minister of Agriculture, Food and Fisheries on the second day.

3. Lessons Learned And Moving Forward – Speakers and Panels

During both days of the Forum, individual speakers (representing federal, provincial and local governments, national and local industry representatives and international agencies) examined the current situation, shared lessons learned from the AI outbreak and provided recommendations to address the many challenges associated with the outbreak.

In addition to the speakers, panels of experts who had been involved in the outbreak, examined issues relating to the four key themes of the Forum: Animal and Human Health Interface; Biosecurity; Enhanced Emergency Management; and Industry and Community Economic Recovery and came to agreement on the current challenges in each area, as listed here.

ANIMAL AND HUMAN HEALTH INTERFACE – CURRENT SITUATION (IDENTIFIED CHALLENGES)

There is a lack of mutual understanding of expected roles and authorities for different organizations and inconsistent emergency response structures within those organizations. It was agreed that CFIA's AI procedure manuals require updating to incorporate the public health assessment of AI risk. An additional challenge in this area is the marginal local public health capacity (e.g. materials, personnel, etc) to respond to future events.

BIOSECURITY – CURRENT SITUATION (IDENTIFIED CHALLENGES)

There are a wide range of on-farm biosecurity measures in place and no mechanism to define the required biosecurity changes on each individual farm. Another key challenge is that there is no auditing process to regularly assess farms for compliance to minimum standards.

ENHANCED EMERGENCY MANAGEMENT – CURRENT SITUATION (IDENTIFIED CHALLENGES)

There is no formal industry emergency plan in place. While industry contacts, knowledge and understanding were key contributions to emergency management, these should be included in emergency planning from the onset of the outbreak. Another identified challenge was related to industry risk in terms of density of commercial flocks and the large number of backyard flocks. Another challenge was the constant need to determine "who needs to know what" and deciding how to meet the ever-increasing information requirements and desires.

INDUSTRY AND COMMUNITY ECONOMIC RECOVERY – CURRENT SITUATION (IDENTIFIED CHALLENGES)

The panel agreed that there were significant losses to allied trades and the local community. There are inequities associated with the current compensation policy and concerns whether the policy is meeting its objectives. Another challenge is that the Health of Animals act compensation is tied to CFIA orders to destroy and may need to be revised to support pre-emptive culls.

After coming to agreement on the current challenges, panels also developed a desired future vision for each panel theme, as well as "next steps" or recommendations for moving forward. These recommendations are summarized in section 4 of this Executive Summary.

Speakers' and panel members' presentations are available on the British Columbia Agriculture Council website at www.bcac.bc.ca/Poultry.htm.

4. Summary of Recommendations from the Forum

The following recommendations were summarized during the Forum and presented to participants by Ross Husdon, Forum Coordinator. Participants agreed that these were the necessary "next steps" in the four areas addressed by the panels. These recommendations will be further developed and implemented by individuals and teams in industry and government. Proposed "leads" for each project are noted in column two.

1. ANIMAL AND HUMAN HEALTH INTERFACE – ACTION	LEAD ORGANIZATION/S
a. Convene first Animal Health/Public Health Forum	CFIA/Public Health Agency of Canada (PHAC)
b. Animal and public health experts to combine capabilities to generate better integrated knowledge about zoonotic diseases	CFIA/PHAC
c. Establish protocols including occupational health measures that ensure animal outbreaks are investigated and controlled through a team approach encompassing animal and human health.	CFIA, PHAC, Health Canada (HC) Workplace Health and Public Safety Program (WHPSP) and Provincial agencies
2. BIOSECURITY – ACTION	
a. Establish a multi-stakeholder working group to develop national biosecurity standards and options for effective implementation	AAFC/Industry
b. Implement renewed biosecurity standards	Industry
c. Examine the feasibility of establishing a pre-emptive destruction policy and develop tools and approaches for rapid pre-emptive culls (BC Industry Emergency Response Plan)	CFIA, AAFC, Industry
3. ENHANCED EMERGENCY MANAGEMENT – ACTION	
a. Update FADES plan by implementing lessons learned and increasing emphasis on zoonotic potential of some diseases	BC Government/CFIA. CFIA to undertake with all provinces
b. Consult with BC Livestock Industries and other stakeholders to improve awareness of the FADES plan	CFIA and BC Government
c. Complete and adopt the Industry Emergency Response Plan	BC Industry
d. Develop a national mortality disposal strategy for all livestock specialties	CFIA/Industry
4. INDUSTRY AND COMMUNITY ECONOMIC RECOVERY – ACTION	
a. Undertake a review, in consultation with stakeholders, of the compensation policy available under the Health of Animals Act	CFIA
b. Maintain a periodic review process for the Health of Animals Act schedule of values including new types of farmed animals	CFIA
c. Government-Industry cooperation in the recovery phase to be enhanced by creating an integrated network of support services (financial, social, etc).	BCMAFF
d. Examine opportunities to mitigate community and allied trade economic impacts	BCMAFF
e. Develop and implement Industry Risk Management Insurance Plan	Industry

5. Forum Conclusion

The Forum Conveners offered closing comments at the end of the day on October 28th and all agreed that there are opportunities to do things better as identified at the Forum. As was said many times during the Forum, Conveners reiterated that no single agency can address ali aspects of an outbreak such as AI and there is a need to work together to build plans and protocols that are practical and efficient. The President of CFIA was thanked by industry for the willingness to discuss events in an open and candid manner.

The Conveners agreed that public health needs to be recognized as an important part of an animal health emergency and that biosecurity needs to be enhanced, not only locally, but nationally as well. Conveners emphasized that there needs to be a collaborative approach to emergency management, that FADES plans need to be redesigned and there is a need to "Practice, Practice, Practice". The President of the CFIA commented that he had consulted with legal counsel in the area of confidentiality regarding which flocks are infected during the disease outbreak and was advised that the issue can be addressed. The difficulties created by not knowing which farms were infected was one of the key issues raised by industry and this information was taken as evidence that CFIA had listened to concerns and meaningful changes would be put in place. In terms of disposal, it was agreed that facilities and protocols need to be in place and known to all parties prior to the next event. There was also agreement that matters of compensation have to be dealt with in advance of a crisis.

All Conveners agreed that effective on-farm biosecurity was the first step in prevention and containment of any disease outbreak and that there is a need to have national biosecurity standards in place.

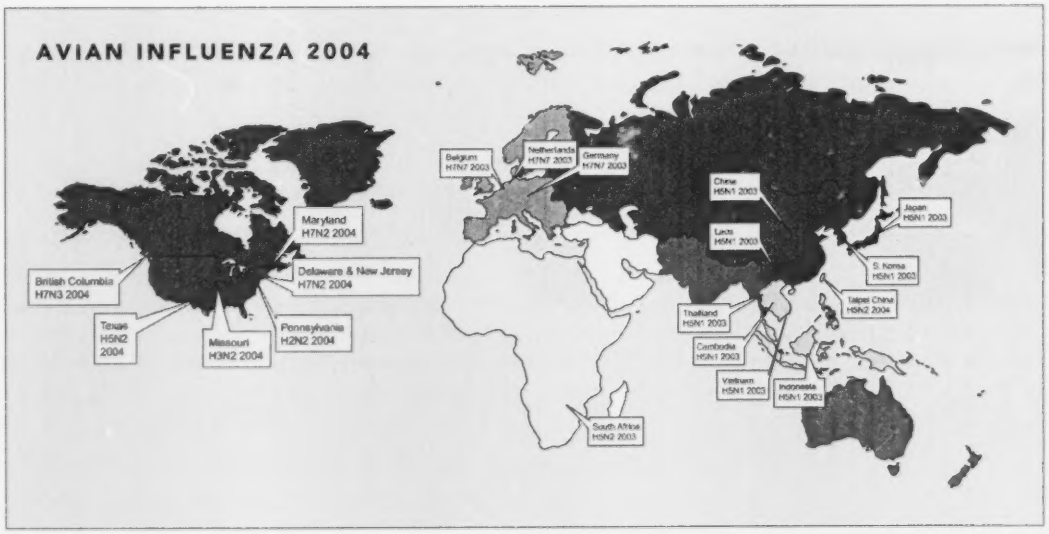
In closing, all Conveners made commitments to work together to implement the recommendations coming out of the Forum. There was a commitment to produce an action plan with follow up leads by the middle of November. This document was produced by CFIA and circulated to all participants on November 19, 2004. Most of the developed recommendations are expected to be actioned by December, 2005.

The Avian Influenza Outbreak – Overview

The Avian Influenza virus is present worldwide. In the spring and summer of 2004, a Highly Pathogenic Avian Influenza (HPAI) outbreak of unprecedented Canadian proportion, occurred in the Fraser Valley of British Columbia. The outbreak started on February 6, 2004 when the first signs of illness, a drop in production and slightly increased mortality, was observed in one of two flocks on a broiler breeder poultry farm in the Abbotsford area.

Controlling the spread of the disease and possible transmission to humans was an unprecedented challenge. The disease spread from farm to farm, as plans and resources were put into operation to contain and eradicate HPAI. The emergency response operation carried out by governments, industry and area residents was eventually successful in eradicating the disease from domestic birds in the affected area. The outbreak "ended" on July 9, 2004 when all premises in the Fraser Valley were eligible to be restocked.

The following table on page 6 summarizes disease control activities during the AI outbreak.



The Avian Influenza Outbreak – Overview

The Avian Influenza virus is present worldwide. In the spring and summer of 2004, a Highly Pathogenic Avian Influenza (HPAI) outbreak of unprecedented Canadian proportion, occurred in the Fraser Valley of British Columbia. The outbreak started on February 6, 2004 when the first signs of illness, a drop in production and slightly increased mortality, was observed in one of two flocks on a broiler breeder poultry farm in the Abbotsford area.

Controlling the spread of the disease and possible transmission to humans was an unprecedented challenge. The disease spread from farm to farm, as plans and resources were put into operation to contain and eradicate HPAI. The emergency response operation carried out by governments, industry and area residents was eventually successful in eradicating the disease from domestic birds in the affected area. The outbreak "ended" on July 9, 2004 when all premises in the Fraser Valley were eligible to be restocked.

The following table on page 6 summarizes disease control activities during the AI outbreak.

ACTIVITY	STATISTICS
# Premises declared infected	42 commercial 11 backyard
# Premises confirmed infected (H7N3 isolated)	28 commercial 2 backyard
# Premises depopulated	410 commercial 553 backyard
# Birds depopulated	14,891,508 commercial 18,148 backyard
# Laboratory Tests Performed	2959 at NCFAD 690 at BCMAFF 629 Directigen
#Permits issued for transport of poultry and/ or poultry products	1116
#Enforcement Investigations	206 investigations 18 penalties issued totaling $31,600

As can be seen from this table, the disease resulted in... the depopulation of almost 15 million birds and an estimated economic loss to poultry producers and allied industries of more than 300 million dollars. There were two human infections identified and confirmed as being transmitted by close contact with infected birds.[1] The outbreak caused stress and emotional turmoil for everyone involved.

Note: For a detailed chronology of the day-to-day events of the outbreak, please see Appendix A of this report.

The Canadian Poultry Industry Forum

Introduction

As a result of the AI outbreak, senior officials in the BC Ministry of Agriculture, Food and Fisheries (BCMAFF), the Canadian Food Inspection Agency (CFIA) and the BC Poultry Industry established a process to develop the Canadian Poultry Industry Forum. The theme of the Forum was "Avian Influenza…Lessons Learned and Moving Forward". The purpose of the Forum and related preparatory focus groups and workshops was to evaluate the overall response to the emergency and make recommendations for improvement.

Preparing for the Forum

To prepare for the Forum, the CFIA held extensive focus groups that reviewed lessons learned….what worked, what didn't work and what improvements were needed. Workshops were also held with Provincial Government Agencies and the Poultry Industry and generally followed the same format as the CFIA focus groups. In addition to the focus groups and workshops, a steering committee met regularly and consulted with conveners to keep Forum development activities moving in the right direction. The Operational Committee also worked with a Working Group and a National Agency Committee to further develop the Forum, based on their technical and scientific expertise.

Conveners and Committees

CONVENERS:

Ray Nickel, President, British Columbia Poultry Committee

Rory McAlpine, Deputy Minister, British Columbia Ministry of Agriculture, Food and Fisheries (BCMAFF)

Richard Fadden, President, Canadian Food Inspection Agency (CFIA)

OPERATIONAL COMMITTEE:

Theresa Iuliano, A/Director, Corporate Program Evaluation, CFIA

Ross Husdon, President, Ross Husdon Management Ltd.

Lynn Elwell, Operations Manager, Ross Husdon Management Ltd.

STEERING COMMITTEE:

BC Ministry of Agriculture, Food & Fisheries (BCMAFF) – Dr. Ron Lewis, Dr. Victoria Bowes, Ken Nickel, Barbara Wright, Ron Barker

Canadian Food Inspection Agency (CFIA) – Theresa Iuliano

Agriculture and Agri-Food Canada (AAFC) – Marg Bancroft, John Berry

Canadian Animal Health Coalition (CAHC) – Matt Taylor

BC Poultry Industry –Garnet Etsell, Marvin Friesen, Ray Nickel

NATIONAL AGENCY COMMITTEE:

Chicken Farmers of Canada (CFC) – Lisa Bishop, Mike Dungate
Canadian Egg Marketing Agency (CEMA) – Bernadette Cox, Tim Lambert
Canadian Broiler Hatching Egg Marketing Agency (CBHEMA) – Errol Halkai, Viki Sikur
Canadian Turkey Marketing Agency (CTMA) – Phil Boyd
Canadian Poultry and Egg Processors Council (CPEPC) - Robin Horel
Further Poultry Processors Association of Canada (FPPAC) – Robert de Valk

The common theme across all preparation activities was to focus on moving forward with practical solutions to the challenges that occurred during the outbreak in areas such as leadership, information management, processes and protocols, communication, and capacity. Much of the information and suggested actions gathered at these sessions was included in the various presentations and recommendations at the Forum.

Objectives and Outcomes

Early in the Forum development process, objectives and expected outcomes for the Forum were identified, to ensure results would be measurable and easily transferred to action plans by industry and governments.

OBJECTIVES:

- Enable the Canadian poultry industry and regulators to review and learn from the recent Avian Influenza outbreak in British Columbia.
- Provide support for Canadian industry partners to enhance national biosecurity protocols.
- Provide support for enhanced emergency management procedures to ensure that any future disease outbreaks are handled in the most efficient manner.
- Recommend strategies to mitigate future outbreaks and support industry and community economic recovery.

EXPECTED OUTCOMES:

- Input into enhanced biosecurity standards for the Canadian Poultry Industry.
- Input into National Emergency Management Procedures and enhanced Foreign Animal Disease Eradication Support plans.
- Input into a national industry and community economic recovery program.

Forum Process and Procedures

The theme of the Forum was "Avian Influenza – Lessons Learned and Moving Forward". The two day agenda included introductions, context setting, closing remarks and commitments for moving ahead by the three Conveners. The Mayor of Abbotsford provided opening remarks on the first day and the Minister of Agriculture, Food and Fisheries on the second day. A chronology of the AI outbreak was presented early on the first day.

The Forum continued with presentations by various speakers representing parties directly involved with the AI outbreak. The speakers provided background and recommendations on what worked, what didn't work and what improvements are needed. This information formed the basis for recommendations proposed by the Panels. The four key Panel topics were:

- Animal/Human Health Interface
- Biosecurity
- Enhanced Emergency Management
- Industry and Economic Recovery

The Forum also benefited from the sharing of international experience by guest speakers from the Netherlands and Texas. In addition, the Commissioner of Emergency Management, Province of Ontario, provided insights from Ontario experience.

More than 180 participants from across Canada from all levels of government and industry attended the Forum…the participants came to the Forum to share experiences and recommendations. Many came to the Forum to learn from BC's experience and take the information back to their Province. Views were openly

exchanged on how future operations should be strengthened. Questions were collected at the Forum and answered by expert panel members and speakers. Participants also had opportunities to exchange information during coffee and meal breaks.

A summary of recommendations from panel members, speakers and participants, was prepared at the Forum. These recommendations will form the basis of action plans to implement improvements identified.

Presentations and recommendations are available on the British Columbia Agriculture Council website at www.bcac.bc.ca/Poultry.htm.

LESSONS LEARNED AND MOVING FORWARD – SPEAKERS AND PANELS

Introduction

As an introduction to the first day of the Forum, Mayor Reeves[2] welcomed all attendees to the Canadian Industry Poultry Forum and to Abbotsford, the beautiful "City in the Country". She emphasized the fact that 75% of the area is used for agricultural purposes and that a disaster in the sector has serious ramifications on their thriving community. The negative side effects have been difficult for the community to bear.

Mayor Reeves noted that for consumers, safety is the most important ingredient of their food and comes before all other considerations. Recent crises have undermined public confidence in the capacity of the food industry and of public authorities to ensure that food is safe.

The Mayor continued by indicating her expectation that the forum would enable the Canadian Poultry Industry to review and learn from the recent Avian Influenza outbreak, that there would be discussions on how to strengthen biosecurity on poultry farms, and how to improve the response to any future outbreaks. Mayor Reeves indicated local government has a very good knowledge of the community and needs to be involved in these solutions. She expected that the forum would produce protocols, emergency preparedness plans and a proper formula for funding these kinds of disasters.

In conclusion, Ms. Reeves thanked each and every participant for taking time out of their busy schedules to bring their knowledge and expertise to make the Forum a landmark event.[3]

Context Setting and Guidelines From Conveners

Following the Mayor's welcome, the Conveners provided background and emphasized the significance of the AI outbreak as being the most serious animal disease in Canada since the Foot and Mouth Disease outbreak in Saskatchewan in the 1950's. It was acknowledged that AI was a devastating event for most people attending the Forum, whether they were a poultry producer, a government regulator, a national industry leader or local veterinarian. It was recognized that all organizations, in both government and industry had shortcomings in managing the AI outbreak. As well, it was recognized that such an event brings people together in an extraordinary way. Those involved in the outbreak were praised for working through each challenge.

It was noted that CFIA leaders and staff recognized there were lessons to be captured and opportunities to strengthen partnerships, protocols and procedures for the future. Conveners emphasized that the Forum was an opportunity for government and industry to work together to develop effective prevention and containment measures to minimize the possibility of such a catastrophe happening again.

Trust and collaboration is key for all partners involved in the management of an avian influenza crisis.

No one can return to "business as usual"....the Conveners concluded with their commitment to work with participants in a spirit of collaboration and optimism to minimize the risk of future disease outbreaks.

Chronology

The Forum then proceeded with a presentation of the chronology of the AI outbreak. Ross Husdon, Forum Coordinator[4], presented a summarized version of the chronology and high-lighted key events in areas of Risk Assessment, Operational Response, Protecting Public and Occupational Health, Industry and Community Economic Recovery and Industry, Community and Public Communications.

Note: For a detailed chronology of the day-to-day events of the outbreak, please see Appendix A of this report.

SPEAKERS

INTRODUCTION

A broad mix of industry, federal, provincial and local government and international speakers provided their perspectives about their experience with AI. Speakers shared the key challenges faced by their organization as well as what worked, what didn't work and what improvements are required.

Speakers' presentations are summarized below. Presentations and recommendations are available on the British Columbia Agriculture Council website at www.bcac.bc.ca/Poultry.htm.

SUMMARIES OF SPEAKERS' PRESENTATIONS

a) Dr. Wayne Lees, Veterinary Epidemiologist, CFIA[5]

Dr. Lees started his presentation by describing influenza pandemics in the 20th century. The first of three pandemics was the Spanish flu (Type A, H1N1) in 1918–19, causing 20–50 million deaths worldwide (550,000 in the US). The second pandemic (Asian flu, Type A, H2N2) occurred in 1957–58, causing 70,000 deaths in the US. Hong Kong flu was the third pandemic referenced (Type A, H3N2), causing 34,000 deaths in the US.

Dr. Lees then talked about when Type A (H5N1) first appeared in humans (1997) in Hong Kong during a fatal epidemic among Hong Kong poultry. There were 43 confirmed cases (30 deaths).

Avian influenza became more common in Canada during the 1960's, with outdoor rearing. In 1966, High Pathogenic H5N9 affected Ontario turkeys. There have been two cases of Low Pathogenic H5 and H7 since 1975. Most recently in 2000, Ontario turkeys were affected by Low Pathogenic H7N1.

Dr. Lees illustrated the progression of an outbreak and the risk factors in the Fraser Valley, e.g.

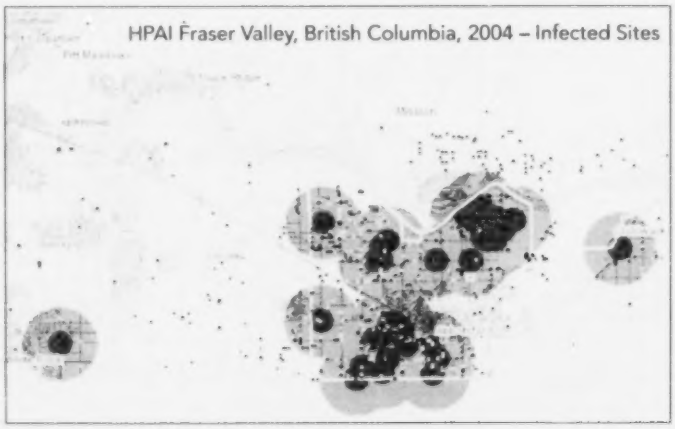
- High density of poultry operations
- Shared people, birds and equipment
- Co-location of pigs and poultry
- Waterbird migratory route
- High density of people
- Travel to SE Asia (exposure to H5N1)

Dr. Lees then talked about a working hypothesis relating to transmission of avian influenza. Factors affecting transmission can include:

- Movement of people
- Movement of common equipment
- Movement of birds
- Unauthorised, undocumented traffic
- Airborne spread

Dr. Lees' epidemiological observations:

- Commercial flocks were 5.6 times more likely to be infected than were backyard flocks
- Infected backyard flocks were discovered after nearby commercial flocks were infected



- Once infection was introduced into an area, it spread quickly to adjacent barns and farms

Dr. Lees pointed out that the influenza virus evolved during the Fraser Valley outbreak, from low pathogenic to high pathogenic strains and that genetic insert mutations varied from farm to farm. In addition, he stressed that strict enforcement of movement controls; intensive surveillance and rapid response (destruction of infected flocks) were instrumental in containing the outbreak.

Dr. Lees asked the question…."Can it happen again?". He pointed out that the same risk factors are still present and this means there is constant "infection pressure". He suggested the poultry industry must adopt a fortress mentality. In conclusion, Dr. Lees noted that the outbreak was three months in duration, that CFIA resources were stretched to the limit and that international reviewers commended the effort expended in managing the outbreak.

b) Theresa Iuliano, A/Director, Corporate Program Evaluation, CFIA[6]

Ms. Iuliano's presentation focussed on the CFIA Lessons Learned public consultation study, its extensive and inclusive scope, objectives, approach and findings. The presentation included recommendations and a summary of achievements, as follows:

RECOMMENDATIONS

- Enhance public health response to zoonotic disease outbreaks through the development of collaborative arrangements with Health Canada and the new Public Health Agency of Canada.
- Review the CFIA's emergency management approach to incorporate lessons learned from AI.
- Engage stakeholders in the ongoing development and exercising of FADES plans in all provinces/territories.
- Address information sharing issues through pre-established agreements or protocols.
- Support the poultry industry's development of bio-security programs.
- Clarify the respective bio-safety responsibilities of the CFIA and public health authorities in the response to zoonotic disease outbreaks.

SUMMARY OF ACHIEVEMENTS

- Spread of disease was contained
- Consumer/market confidence was maintained
- Innovation and problem solving was demonstrated
- Declaration of control area
- Laboratory testing
- Disposal strategies (composting)
- Effectiveness of control measures recognized by trading partners
- Regionalization was accepted by the European Union (EU) and the United States (US)
- Movement of risk-free product continued

c) Dr. Theresa Tam, Associate Director, Immunization and Respiratory Infections Division, Public Health Agency of Canada and Health Canada, Lessons Learned.[7]

Priority: Caution! The question that must be continually asked: Will this disease have a serious impact on human health?

Dr. Tam started her presentation by talking about the key players in Human Health and roles and responsibilities. She then emphasized that dealing with an outbreak of an emerging infectious disease requires a great degree of caution!!! There are many unknowns associated with "new" or emerging infectious diseases. Dr. Tam added that it is almost impossible to be too careful when managing an emerging infectious disease, particularly in the early stages. The question that must continually be asked in such circumstances is ***"Will this disease have a serious impact on human health"?***

SUMMARY OF LESSONS LEARNED

- Lessons have been learned and applied from recent outbreaks of human infectious diseases of animal origin
- Rapid information sharing across responder organizations, the existence and use of a pre-existing pandemic influenza plan, and the availability of some additional emergency operations support were all key elements in helping to manage the avian flu outbreak

- Zoonotic diseases are a reality and on the rise – they create significant challenges and there is still much work to be done
- PHAC/HC has identified two areas to reduce the impact:
  - Increase expert capacity to manage outbreaks
  - Develop cohesive outbreak management protocols with partners: talks already underway between PHAC and CFIA

---

d) Bud Graham[8], Assistant Deputy Minister, Resource Development and Sustainability Division, BCMAFF

Mr. Graham's presentation began with a discussion about the Provincial Agency meeting where representatives identified what worked well, what didn't work well and what improvements are needed in four major topic areas. These are the same topic areas that were explored by expert panels at the October Forum (Animal/Human Health Interface, Enhanced Emergency Management, Biosecurity and Industry and Community Economic Recovery). Following is a summary of recommendations resulting from the Provincial Agency meeting:

- Recognize that no single agency can address all aspects of the issue
  - Need to resolve regulatory issues that prevented industry from exercising leadership to eradicate/ control the disease.
- Establish Federal/Provincial agreement on emergency management procedures
  - Need to have CFIA lead disease eradication within a management structure led by the province.
  - Need to allow industry leaders to assist in providing information, mobilizing people and equipment and addressing worker safety.
- Establish a centre that focuses on animal/ human health issues
- Develop process for entire industry to meet biosecurity standards
- Ensure facilities are in place to handle disposal during the next event
- Redesign and Renegotiate BC FADES Plan
- Communicate clear and consistent messages about compensation
- Improve inter-agency communications

---

e) Marvin Friesen Chief Executive Officer, Clearbrook Grain and Milling[9],

Mr. Friesen began his presentation (on behalf of the poultry industry), by questioning the policies of governing agencies in relation to the avian flu. Industry still questions the protocols and procedures in place for managing an agricultural crisis such as Avian Influenza.

He went on to say that industry's uncertainty must be replaced with certainty. In order to overcome industry's concerns and doubts about the next outbreak, we must learn from what we experienced.

The main goal during a challenge like Avian Influenza is to eliminate the disease and get back into production as soon as possible. It was 81 days from the initial detection to the last positive farm in what grew to be 42 positive farms. This was too many farms and too long a period of time. In order to prevent such gross mismanagement in the future, we must learn from this experience with Avian Influenza.

Mr. Friesen then presented Lessons Learned:

1. "It can happen to me" Get out of denial
2. Get Involved and fast – We all wasted too much time sitting around, demand action. Too much time was wasted waiting for ineffective protocols to become effective. Action must replace complacency
3. CFIA must communicate what is happening
4. You need to have a plan – plan must be specific written and easily executable – who, what, where, when, how
5. CFIA must have a much more aggressive eradication strategy
6. Poultry Industry is diverse, not all segments are organized
7. Go big early
8. Confidentiality – people need to know the facts during a crisis
9. CFIA needs to have decision makers on site to make quick and timely decisions
10. CFIA must utilize local resources
11. Each disease needs its own plan
12. Movement Controls – Industry suffered unnecessary economic loss due to restrictions on movement – fresh and frozen poultry
13. Industry needs to have decision making powers
14. Establish Criteria on when to kill
15. Industry will be involved next time from beginning and more broadly and will have more of an impact on policy setting and what actions are taken when.
16. Industry must be united
17. Industry must be prepared to communicate its message to public
18. Test Test Test – We need ongoing surveillance for AI
19. Industry can be wiped out – there are not lifelines for everyone
20. During a crisis is no time to be negotiating compensation
21. Compensation under Health of Animals Act Inadequate – define market value
22. Biosecurity is Essential
23. Investments in the future

In conclusion, Mr. Friesen offered the following thoughts....

- I don't ever want to see the roads in my neighborhood blocked off again.
- I never want to see rows of white plastic bags filled with millions of composting carcasses.
- I never want to see workers dressed up in protective 'Moon' suits and protective breathing masks.
- I don't want to have to question my government or its plans for emergency management.
- I want to be able to trust and have confidence in the Canadian Food Inspection Agency.
- The time to is now, Industry will act, Industry is acting. We can't ever let this happen again.....We will not allow this to ever happen again.

Avian Influenza outbreaks have occurred in many countries. Speakers provided an international perspective on managing all aspects of an AI outbreak and emergency management, in general.

---

f) Dr. Susanne E.H.M. Waelen, Veterinary Policy Officer, Animal Disease Control for Poultry, Ministry of Agriculture, Nature and Food Quality, Netherlands. [10]

Dr. Waelen talked about the Netherlands AI outbreak that started February 28, 2003 and was eradicated on May 7, 2003. This outbreak resulted in depopulation of 30.3 million birds, which was approximately 30% of the entire poultry population. The cost to the Dutch government was approximately 270 million euros ($415.8 million Cdn.) and the cost to industry was 500 million euros ($770 million Cdn.). Dr. Waelen outlined the eradication measures and strategies used in the Netherlands and also provided insights as to the source of the virus.

Dr. Waelen also summarized Netherlands Lessons Learned:

VETERINARY

- Be aware of emerging infectious diseases
- Importance of early detection/early warning
- Importance of monitoring for LPAI
- Discussion about the risks of free range holdings

- Discussion about risks of hobby/backyard flocks
- Discussion about vaccination

SOCIAL/SOCIETY

- Public Health risk; zoonosis
- No social basis any more for killing healthy animals
- Discussion about financing eradication and control of animal diseases in NL and EU

Dr. Waelen's information can be used when implementing improvements to the enhanced emergency response strategies in Canada.

---

g) Dr. James Young, Commissioner of Emergency Management, Province of Ontario – "Meeting the Challenge" [11]

Dr. James Young was the dinner speaker and through his presentation "Meeting the Challenge", provided insight into the current trends in emergencies:

- More frequent
- Bigger
- International in scope
- More complex

Using experience gained from the SARS outbreak in Ontario, Dr. Young pointed out the need to manage increasingly complex emergencies in a new way:

- Recognize emergency situations
- Be proactive before an emergency
- Be aggressive in dealing with emergencies
- Battle complacency

---

h) Honourable John van Dongen, BC Minister of Agriculture, Food and Fisheries and MLA for Abbotsford-Clayburn. [12]

The Minister opened the Forum on Day 2. He stated he was encouraged by the willingness of Forum participants to come together to discuss critical lessons learned from the AI outbreak in the Fraser Valley and ways to move forward to protect the health of the public and the poultry industry.

Minister van Dongen supported the use of the Forum's discussion and problem-solving approach, rather than one of assigning fault or blame. The Minister recognized the efforts of Forum organizers and co-chairs and expressed a real appreciation for those who, despite frustration and losses, were at the Forum to share in being better prepared and coordinated in the future. He encouraged all to challenge themselves to listen and to respect divergent views and concerns.

"Where decisions are more collaborative, the certainty and confidence in a plan will be significantly enhanced"

The Minister provided insights on governance.....

- No agency is an island. In any given situation, the lead agency must work with industry and other agencies.
- The lead agency needs to identify the relevant partners (industry and government) and engage them in an effective emergency governance structure.
- All agencies effectively engaged in governance of a crisis need to accept responsibility to make timely decisions that incorporate the interests of all agencies.
- In setting up the appropriate governance structure, there needs to be an open discussion of each agency's mandate and responsibility. This must be followed by a common, shared commitment to the collective mandate. There is also a need for leadership and a structure process to achieve resolution on different views or conflicting objectives.

Minister van Dongen concluded by indicating he was pleased to be at the Forum to take part in work related to protecting public health and strengthening industry, with the objective of being better coordinated and working cooperatively in the future.

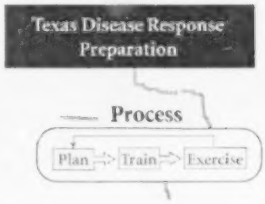
---

i) Dr. Max E. Coats, Deputy Executive Director, Animal Health Programs, Texas Animal Health Commission. [13]

Dr. Coats reviewed the Texas AI outbreak that occurred in February of 2004. He discussed the role of the industry and the state and federal governments in controlling the disease. The United States Department of Agriculture has the lead role in eradication of AI, which is similar to the situation in Canada, where this responsibility rests with CFIA.

Dr. Coats talked about Response Factors:

- Pathogenicity
- Operation size
- Location
- Responders – state-industry-public
- Responder training



He also commented on issues that still need to be addressed:

- Level of surveillance in noncommercial sector
- Enhanced partnerships
- Implementation of a national low-path AI program
- Funding for responses to domestic or foreign disease situations

The proactive role taken by the state, industry and the use of the Texas Emergency Response Team, can provide valuable lessons about how to integrate provincial emergency management expertise into the control of a disease, where the CFIA has the lead.

---

j) Matt Taylor, Executive Director, Canadian Animal Health Coalition, Animal Health Emergency[14]

Matt Taylor provided a profile of Canada's Food Animal Industry, explained the role of the CAHC and how they contribute to animal health and emergency management. Mr. Taylor's comprehensive presentation also included work done to date by the Coalition, work in progress, and recommendations for improvements in emergency management.

The coalition's work since 2002 has included:

National Animal Health Strategy – Emergency Management

- Canadian Animal Health Emergency Management (CAHEM) Strategy

Identification & Traceability (Canadian Livestock Identification Agency)

- Facilitate 'Strategic Plan' and obtain start-up funds

Emerging Issues

- Johne's Disease Control Program (in process)

Animal Care

- Facilitating consideration of a National Farm Animal Care Council

Policy Recommendations to industry & government

- Cease movement
- Depopulation
- Welfare (surplus to market) slaughter
- Mass depopulation
- Carcass disposal

CAHEM Projects Proposed

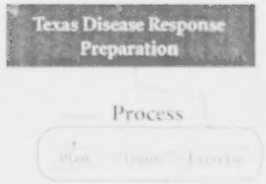
- Communications / Awareness Campaign
- Biosecurity Program
- Emerging Issues Council / Disease Investigation Team
- Sector specific profiles
- Contact Lists (Generic for national & provincial)
- Resource Inventories
- Movement Studies (beef, dairy, poultry – pork done)

In conclusion, Mr. Taylor asked whether recommendations of the Forum could lead to the following:

- Greater urgency / recognition for animal health emergency management
- National Animal Health Strategy
- Animal Health Emergency Management Program within that Strategy
- National Animal Health Management Committee
- Animal Health Emerging Issues Unit
- Policy Development Unit
- National Animal Health Laboratory Network
- Agreements and MOU's
- Provincial Emergency Operations Centres
- Incident Command System
- Dedicated Funding Programs

Dr. Coats talked about Response Factors:

- Pathogenicity
- Operation size
- Location
- Responders – state-industry-public
- Responder training



He also commented on issues that still need to be addressed:

- Level of surveillance in noncommercial sector
- Enhanced partnerships
- Implementation of a national low-path AI program
- Funding for responses to domestic or foreign disease situations

The proactive role taken by the state, industry and the use of the Texas Emergency Response Team, can provide valuable lessons about how to integrate provincial emergency management expertise into the control of a disease, where the CFIA has the lead.

---

j) Matt Taylor, Executive Director, Canadian Animal Health Coalition, Animal Health Emergency[14]

Matt Taylor provided a profile of Canada's Food Animal Industry, explained the role of the CAHC and how they contribute to animal health and emergency management. Mr. Taylor's comprehensive presentation also included work done to date by the Coalition, work in progress, and recommendations for improvements in emergency management.

The coalition's work since 2002 has included:

National Animal Health Strategy – Emergency Management
- Canadian Animal Health Emergency Management (CAHEM) Strategy

Identification & Traceability (Canadian Livestock Identification Agency)
- Facilitate 'Strategic Plan' and obtain start-up funds

Emerging Issues
- Johne's Disease Control Program (in process)

Animal Care
- Facilitating consideration of a National Farm Animal Care Council

Policy Recommendations to industry & government
- Cease movement
- Depopulation
- Welfare (surplus to market) slaughter
- Mass depopulation
- Carcass disposal

CAHEM Projects Proposed
- Communications / Awareness Campaign
- Biosecurity Program
- Emerging Issues Council / Disease Investigation Team
- Sector specific profiles
- Contact Lists (Generic for national & provincial)
- Resource Inventories
- Movement Studies (beef, dairy, poultry – pork done)

In conclusion, Mr. Taylor asked whether recommendations of the Forum could lead to the following:

- Greater urgency / recognition for animal health emergency management
- National Animal Health Strategy
- Animal Health Emergency Management Program within that Strategy
- National Animal Health Management Committee
- Animal Health Emerging Issues Unit
- Policy Development Unit
- National Animal Health Laboratory Network
- Agreements and MOU's
- Provincial Emergency Operations Centres
- Incident Command System
- Dedicated Funding Programs

PANELS

INTRODUCTION

Expert panels of people who had played key roles in the Avian Influenza outbreak were assembled from a variety of local, provincial, national and international organizations to explore the four key themes:

1. Animal/Human Health Interface
2. Biosecurity
3. Enhanced Emergency Management
4. Industry and Community Economic Recovery

In preparing for the panels, all presenters were asked to consider "What worked, what didn't work and what improvements are needed?" In terms of a consistent format, panel members presented materials in the following way:

1. Role of organization during the outbreak
2. Organizational Perspective
   - What were the 2 or 3 key issues/challenges that emerged during the outbreak?
   - What have we learned?
   - What changes do we feel need to be made?
3. Moving Forward
   - What are some of the potential opportunities for collaboration?
   - What tangible action items are we willing to commit to?

PANEL 1 – ANIMAL/HUMAN HEALTH INTERFACE

INTRODUCTION

What were the animal/human health issues? What are the appropriate protocols to safeguard human health during this type of disease outbreak? These questions and others were examined by Panel 1.

PANEL CHAIR AND MEMBERS

Dr. Paul Gully, Senior Director General, Health Canada chaired the Animal/Human Health Interface panel. The panel chair provided overview comments and context for the panel presentations. Panel members were:

- Dr. Theresa Tam, Associate Director, Immunization and Respiratory Infections Division, Public Health Agency of Canada
- Dr. Judith Bosse, Vice-President Science, Canadian Food Inspection Agency
- Dr. Perry Kendall, Provincial Health Officer, British Columbia Ministry of Health Services
- Dr. Andrew Larder, Emergency Response Planning Coordinator, Fraser Health Authority

---

Summary of Panel Presentation – Dr. Theresa Tam[15]

Dr. Tam stated that with 15 "H" and 9 "N" subtypes and with aquatic birds forming a large natural reservoir for the virus, influenza A is a ticking time bomb. In her presentation she addressed the following points:

- **Why is avian influenza a human health concern?**
  Avian influenza can result in a new strain of influenza A to which no one is immune resulting in large amounts of illness and death. The problem is that it is not possible to predict which avian flu viruses might have pandemic potential since the molecular basis for reassortment is not known.
- **What is the role of public health?**
  The role of public health agencies is to protect and maintain the health of our communities and populations by reducing the risk of an emergence of a pandemic strain.
- **What public health actions can be taken?**
  There must be local level response with national coordination and leadership. A multi faceted approach is required using surveillance and laboratory testing; public health measures including isolation of the sick and quarantine of contacts; vaccines against human influenza; antivirals for prevention and treatment, personal protective measures and communication and education.
- **What can we do better?**
  Communicate Public Health Agency of Canada and Health Canada roles and responsibilities, resources and expertise. Strengthen our understanding of stakeholders' roles and responsibilities, mandates and objectives and increase awareness and understanding of existing infectious disease response plans.

SUMMARY

- Human health considerations should be an integral part of any avian influenza response.
- Keep an open mind and remain flexible in our approach to new infectious diseases.
- Human and animal health partners were successful in managing the human health response – only 2 human cases.

Dr. Tam concluded the presentation with the question – Are we prepared for a Pandemic?

Summary of Panel Presentation – Dr. Judith Bosse [16]

Dr. Bosse set out a series of issues in addressing the Animal/Health Interface:

- **Communication**
  In regards to occupational health and safety there was good communication but the initial lag period needs to be addressed by linking the FADES plan to the public emergency plan with clear roles and responsibilities. Communication between public health officials for other aspects of emergency management was less effective among all parties. This did improve over the course of the emergency but shows the need to have roles and responsibilities of all involved have to known before the crisis.
- **Roles and responsibilities – CFIA versus public health officials**
  CFIA is responsible for its own employees and hired contract workers. The responsibility for farm workers and the public needs to be addressed by public health groups.
- **Response Plans**
  The CFIA emergency plans to respond to zoonotic diseases should be linked to public health emergency plans and these plans should be exercised. The emergency plan should include a public health planning component which is linked to animal disease eradication planning.
- **New Knowledge**
  Much remains to be learned about zoonotic animal disease hazard exposure in the context of Canadian agricultural practices. Animal and public health experts ought to combine capabilities to generate better integrated knowledge about infectious agents. AI could be the subject of a first AH/PH Forum.

Summary of Panel Presentation – Dr. Perry Kendall[17]

Dr. Kendall initiated his presentation with a review of the role of the Provincial Health Officer:

- Monitor activities that might present a threat to public health.
- Monitor and liaise with provincial public health agencies – e.g. BC Centre for Disease Control (BCCDC), Fraser Health Authority (FHA)
- Liaise with HC and the PHAC
- Liaise with veterinary health specialists – e.g. BCMAFF, CFIA
- Take part in planning and due diligence exercises
- Ensure human health issues are addressed

Why Influenza is a public health concern:

- On average each year 5 million Canadians are infected; 50,000 are hospitalized; 4500 people die; 1.5 million work-days are lost with a cost to the Canadian economy of $1 billion dollars
- Influenza A virus subtypes are most diversified in birds and a limited number of subtypes infect humans and other mammals

Ingredients for a pandemic and resulting impact:

- Novel influenza A subtype
  From avian influenza virus reservoir
- Worldwide susceptibility
  No or very low level of specific immunity in the population
- High level of human to human transmissibility
- Highly virulent pathogen
- Potential Impact
  Up to 26 million infected; 5-15 million clinically ill; 34 – 106 thousand hospitalized; 9,000 – 25,000 deaths with an estimated economic cost of $1.4 B to $2.5 B for health care and $10 B to $24 B societal costs

Key public health lessons

- Prevention of a pandemic is public health's main interest in avian influenza since the most likely source is avian.

- Know our limitations – always consult with partners.
- Open and effective communication is key.
- Human health concerns should always trump economic concerns.

Moving Forward

- The PHAC needs to establish an area of expertise that focuses on the animal/human disease interface.
- Mandate CFIA to place high importance on issues of potential animal/human disease interface and develop links with PHAC.
- Establish Standard Operating Procedures (SOP) to ensure that animal disease outbreaks are investigated with a team approach that includes public health.
- Establish that SOP includes data collection and analysis, laboratory and clinical investigation, epidemiology studies, biosafety and biosecurity issues, analysis and dissemination/publication of results.

Summary of Panel Presentation – Dr. Andrew Larder[18]

Dr. Larder explained the role of the local public health office during the avian influenza outbreak. The public health office role is to protect health of residents by preventing the spread of an infectious disease dangerous to public health.

Role during the outbreak:

- Recommendations for actions to reduce risk of infection in those exposed.
- Recommendations for safe disposal of infected material.
- Surveillance for illness, and follow-up of those with symptoms.
- Inform public about health risks and necessary actions.

Key Challenges

- Failure to persuade those involved of the significance of the threat to human health.
- Lack of mutual understanding of expected roles and authorities for different organizations.
- Inconsistent emergency response structures – local public health officer was unaware that a FADES plan was in place and how public health fit into that plan.
- Marginal public health capacity in FHA to respond to this event – materials, personnel.

Potential Opportunities

- CFIA, Provincial agencies need to re-examine roles, align emergency response structures.
- Poultry Industry needs to partner with public health in industry re-design to minimize potential for disease outbreak. This includes biosecurity, poultry population density and worker preventative actions.

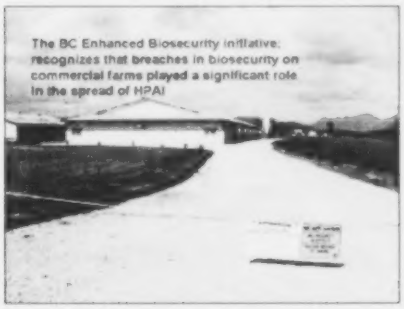
Panel speakers referred to the importance of surveillance and epidemiological information during a disease outbreak. At the first report of the AI outbreak enhanced surveillance was implemented for federal workers, farm workers and their household contacts. There are approximately 2,000 poultry farm workers in the Fraser Valley and approximately 650 federal workers assisted with outbreak management and control. There were also a large number of other persons including local government, provincial employees and numerous others who were involved. Not all of these persons had poultry exposure but there was concern by public health officials over the potential for human infection.

The AI outbreak in the Fraser Valley was diagnosed as the influenza A H7N3 virus. To mitigate the risk of human infection, workers were advised to wear protective clothing and to take recommended vaccinations and drugs. Surveillance carried out by the Fraser Health Authority and the BC Centre for Disease Control identified 57 persons meeting a suspected case definition with avian influenza infection confirmed in 2. This is the first known human avian influenza H7N3 infection. Both persons responded positively to treatment. Both workers were not following the recommended protective clothing and medication procedures. Following this incident, the public health authorities intensified their disease prevention advisories.[19]

By comparison, the 2003 AI outbreak in the Netherlands was confirmed as the influenza A H7N7 and 453 persons were identified with meeting a suspect case definition and of these, 89 people were confirmed with avian H7N7 infection. A veterinarian working on the

outbreak died due to Acute Respiratory Distress Syndrome (ARDS) caused by the AI H7N7 virus. Further surveillance has shown that 50% of the workers handling poultry and 59% of the family members tested serologically positive to the virus.[20]

PANEL 2 – BIOSECURITY


The BC Enhanced Biosecurity Initiative:
recognizes that breaches in biosecurity on
commercial farms played a significant role
in the spread of HPAI

INTRODUCTION

The biosecurity panel examined topics such as…What are appropriate biosecurity standards for the poultry sector? How are these standards enforced? How could national standards be put in place? These questions and others were recommended by Panel 2.

PANEL CHAIR AND MEMBERS

Mr. Howard Migie, Acting Assistant Deputy Minister, Agriculture and Agri-Food Canada chaired this Panel. The panel chair provided overall com ıents and context for the panel presentations. Panel members were:

- Dr. Jim Clark, Senior Staff Veterinarian, CFIA
- Ms Daphne Stancil, Assistant Deputy Minister, BC Ministry of Agriculture, Food and Fisheries
- Mr. Mike Dungate, General Manager, Chicken Farmers of Canada
- Mr. Ray Nickel, Chair British Columbia Poultry Committee and
- Dr. Victoria Bowes, Avian Pathologist, BC Ministry of Agriculture, Food and Fisheries.

Summary of Panel Presentation – Dr. Jim Clark[21]

Dr. Clark outlined the items and issues that need to be considered in establishing an effective biosecurity program:

- Biosecurity is based on barriers
  These may be real such as fences, doors, etc. or perceived such as signs with restrictions or instructions and are intended to exclude people, animals and things who don't need to be there.
- Areas of Concern – The entry to the farm and the entry to the building
  - Need to control and/or exclude people, wildlife, things (equipment) air, water and feed.
  - To control entry to the farm – enclose the farm (fence) – enclose the barn (fence) – block the entrance (close the gate, lock the gate and put up signs).
  - To control entry to the barn – put up signs – lock the door – create "Clean" and "Dirty" areas (clean and disinfect provide protective clothing and equipment).
  - Controlling entry to the barn also includes: screen air intakes and outlets, treat the water supply, protect feed sources from contamination and ensure that adequate rodent/wild bird control measures are in place.
  - Proximity to adjacent poultry operations will determine the level of precautions that must be taken – close proximity means higher level of precaution.
- Developing the Biosecurity Plan – consult with experts, write a plan for biosecurity, should be part of on-farm food safety plan, communicate the plan, train workers, verify and review periodically.
- Very important that everyone participates – "weakest link theory".
- Need enhanced measures for disease outbreak situations – movement control (Define Control Area, zones and issue permits) – surveillance, depopulation, disposal of infected flocks and supervision of C&D are key items.

The Avian Influenza outbreak – key issues:

- Time interval between low path and high path diagnosis was important.
- CFIA has well designed biosecurity procedures for entering and leaving a farm and disposal of birds.
- Early challenges associated with destruction and disposal impeded CFIA's ability to react quickly.

- Movement controls and on farm biosecurity critical to stop spread of disease
- Currently, there area no industry standards – when the standards are developed, all poultry owners must adhere to standard

Moving Forward

- Need an industry designed standard that works and is achievable by all players to prevent disease introduction
- Need an industry designed standard that works and is achievable by all players to prevent disease spread before CFIA is involved
- CFIA, provincial government, and industry all have valuable contributions to make in the design

---

Summary of Panel Presentation – Ms. Daphne Stancil[22]

Ms. Stancil set out the guiding principles and the policy and legislation options that need to be considered in establishing a biosecurity protocol.

Guiding Principles:

- Be based on the practices relevant to the industry or sector
- Be based on a commodity or sub-commodity risk assessment
- Be based on science
- Result in disease prevention
- Result in reduced health risk
- Support industry competitiveness
- Be equitable
- Encourage continuous improvement and innovation
- Secure domestic and export markets
- Enhance consumer confidence in the safety of poultry and poultry products
- Enhance consumer confidence in food production practices

Policy and legislation options – what are some of the tools for a national approach?

- Voluntary – A model like the on-farm food safety program, but directed at biosecurity and could use the national organizations with provincial level organizations delivering the program.

  Relies heavily on the educational model but with some ability to make mandatory within regulated sectors.
- Mandatory – rely on federal legislation or on a mix of federal and provincial legislation.

Federal tools

Health of Animals Act (Canada) – would require federal regulation, with approaches to inspection and enforcement to be addressed.

Farm Products Agencies Act – some ability to use national agencies in supply managed sectors to be part of a national scheme. Would only apply to nationally regulated commodities so some limitation in scope.

Provincial tools – regional focus

Animal Disease Control Act – not as powerful as federal legislation, but regulation could be made to parallel federal legislation if necessary. Applies to owners of animals or in possession of animal – so does not extend to inputs but provides flexibility in program delivery.

Food Safety Act – arguably provides broad powers that could be used to establish standards around food production from production to retail. Has flexibility in inspection and a range of enforcement tools.

Natural Products Marketing (BC) Act – probably has capability to authorize boards to regulate biosecurity in production through to marketing. The main focus is the producer but has some limitations since it applies only to regulated commodities.

Summary and next steps

- Legislative capacity exists at federal levels to put mandatory scheme in place and some capacity at provincial level but the question remains who decides the appropriate direction.
- Establish decision-making process – Include industry and federal and provincial officials in working group to support decision-making.

Summary of Panel Presentation – Mr. Mike Dungate[23]

Mr. Dungate outlined the role of the CFC during the AI Outbreak, Biosecurity Lessons Learned and Biosecurity Standards

AI Outbreak – Role of CFC

- Communications – 50-100 calls, 5-6 media interviews, 2-3 conference calls, Website provided information and stakeholder communication and coordination.
- Chicken West Supply – 6.3 million kgs live chicken grown in other parts of Canada using BC chicken quota allocation resulting in chicken for BC processors and $940,000 in lease fees that was used by the BC Chicken Marketing Board to offset extraordinary costs. Canadian Poultry and Egg Processors Council were important partners.
- Fast-track Imports – worked with other partners and International Trade Canada to import 16 million kgs of chicken to provide product to BC processors.

Biosecurity Lessons Learned

- The best way to prevent an AI outbreak is to stop the virus from coming in contact with birds.
- Disease Transmission – farmers, service personnel, media and others.
- Disease Transmission – fast, aerosol requires pre-emptive slaughter.

Biosecurity Standards

- Safe, Safer, Safest (CFC's on-farm food safety program) – consistent national approach, provincial delivery, CFIA technical approval and biosecurity is a key component.
- Implement Safe, Safer, Safest – all 2,800 Canadian chicken farms have the program. 850 farms have been audited and certified with 1,300 – 1,400 by end of year and all farms by July 2006.

Biosecurity Actions

- CFIA approval of management protocol.
- Certify all farms quickly.
- Enhance science on disease transmission.
- Incorporate enhanced biosecurity protocols.
- Establish pre-emptive destruction policy.

Summary of Panel Presentation – Mr. Ray Nickel and Dr. Victoria Bowes[24]

Mr. Ray Nickel outlined the steps that the BC poultry industry is taking to develop and implement enhanced biosecurity initiative. Dr. Bowes presented an overview of the biosecurity initiative and began with an assessment of the avian influenza outbreak, discussed the background to the initiative and the elements of the initiative.

Avian Influenza BC-2004

- This was no different from other recent outbreaks of AI in commercial poultry: This disease was spread, in part, by commercial poultry farm traffic and the movements of people and contaminated equipment.
- AI got into barns full of susceptible birds by breaches in on-farm biosecurity.

Recognizing the Challenges

- There is a wide range of currently practiced on-farm biosecurity measures UNACCEPTABLE ‡ ADEQUATE ‡ IDEAL. There has been a sense of "getting away with it" for too long; there will be resistance to change. The Allied Trades should be developing their own enhanced biosecurity protocols in parallel; they are crucial to disease containment.
- Compliance & Enforcement: How can the industry be encouraged to make these changes? What legal authority can enforce compliance? What infrastructure needs to be in place to ensure compliance (inspectors, certification)?
- Reassessment & Audit: How can each farm be individually assessed for compliance & need? Regular inspections? How often?

Biosecurity Initiative – Objectives

- A response to AI but not AI specific – increased productivity and profitability; considered a long term investment.
- Reduce the risk of a disease reoccurrence.
- Mechanisms in place to expedite disease containment should an outbreak occur

Biosecurity Initiative – The project

- First step was to adopt a "framework" document with clear objectives and terms of reference.
- Define industry-wide "Minimum Standards" that would be effective but not cost prohibitive or put BC at a competitive disadvantage – Challenge – apply cross-commodity.
- Measure the biosecurity baseline for each farm – Producer Self-Assessment Guide

- Identify and address inadequacies in on-farm biosecurity that increase risk of disease introduction; manage the risk. Provide each producer with a "Reference Manual" with Specific One-Page Protocols – Example: PRODUCER SELF-QUARANTINE, VISITORS.
- Identify and manage commodity-specific activities of risks- examples of risk: Multi-age barns, Multi-farm managers, Shared equipment, Spiking Roosters, Topping up, Farm Gate egg sales, Yard-run management.

The Current Challenges

- Complaints reporting – producers and other members of the poultry industry need a formal confidential complaints process that would document and deal with reports of biosecurity breaches, recognizing that poor biosecurity puts the entire industry at risk of disease.
- Compliance – the voluntary implementation of enhanced biosecurity standards has been met with guarded success. But is it too early to tell? How can this be assessed?
- Assessment & audit – currently there is no mechanism in place to objectively define the required changes to biosecurity on each individual farm. Do we need technical assistance to ensure implementation? A biosecurity officer? A certification program? Other forms of incentive? There is no provision for an auditing process that regularly assesses farms for compliance to minimum standards.

There is no identified legal authority to address enforcement issues and penalties for non-compliance. Standards need to be measurable with pass/fail clearly detailed. There must also be provision for an appeals process.

PANEL 3 – ENHANCED EMERGENCY MANAGEMENT

INTRODUCTION

How can lessons learned from the Avian Influenza outbreak contribute to enhanced emergency management strategies for future animal disease incidents (e.g. animal disease containment strategies, Foreign Animal Disease Eradication Support (FADES) plans? These and other questions were examined by Panel 3.

CHAIR AND MEMBERS

Dr. James Young, Commissioner of Emergency Management, Province of Ontario, chaired the Panel. The panel chair provided overview comments and context for the panel presentations. Panel members were:

- Mr. Phil Amundson, Executive Director, Western Area Operations. CFIA
- Dr. Ron Lewis, Director Animal Health Centre and Chief Veterinarian, BC Ministry of Agriculture, Food and Fisheries
- Mr. Bob Bugslag, Deputy Director, BC Provincial Emergency Program
- Mr. Don Beer, Deputy Fire Chief, City of Abbotsford
- Ms Lisa Bishop, Manager of Communications, Chicken Farmers of Canada
- Mr. Derek Janzen, Chair, BC Egg Producers' Association

Summary of Panel Presentation – Mr. Phil Amundson[25]

Mr. Amundson outlined three important issues to be considered in enhanced emergency management:

- Prevention – prevent the emergency from happening through enhanced bio security
- Preparedness – develop an emergency management plan, practice the plan and understand the roles and responsibilities of partners
- Response – early recognition through surveillance is key since the first 48 hours are critical in containing a disease outbreak. There must be rapid and effective deployment of resources involving all partners.

The AI outbreak in the Fraser Valley presented some unique challenges:

- Density of commercial flocks
- Large number of backyard flocks
- Specialty bird production

Solutions:

- Plan
- Practice
- Revise the Plan
- Recognize role of partners

Summary of Panel Presentation – Dr. Ron Lewis[26]

Dr. Lewis reviewed the Foreign Animal Disease Eradication Support (FADES) Plan for British Columbia that was signed September 2002

- Purpose – a MOU between federal and provincial governments whereby federal and provincial agencies accept responsibilities as outlined in addressing a foreign animal disease event in British Columbia. Applies to Office International des Epizooties (OIE) List A diseases e.g. FMD, HPAI, CSF. Signatories (Primary Agencies) – Executive Director, Western Area, CFIA, Deputy Minister, BCMAFF, Regional Director, Public Safety and Emergency Preparedness Canada and the Director, Provincial Emergency Program (PEP).
- Concept – the responsibility for implementing eradication of a FAD in BC is vested in the executive Director, Western Area for the CFIA. 2 action levels:
  - Level 1: FAD is suspect but not confirmed
  - Level 2: Initiated when the federal minister of agriculture makes the declaration and defines a control area
- Finance and Administration – CFIA responsible for ALL costs incurred in conducting eradication operations. Provincial departments and municipalities will prepare their accounts and submit them to PEP for collation and analysis.
- Collateral Agencies
  - Provincial: CAWS; MOH services; MOT; WLAP, Intergovernmental relations secretariat
  - Federal: Industry Canada; Environment Canada; RCMP; Canadian Forces; Public Works; Heritage Canada; Parks Canada; Indian and Northern Affairs; CCRA; HRDC; CFIA Research Station; Transport Canada; AAFC
  - Local government authorities
- CFIA Tasks – Direct all eradication activities: Collect and disseminate information using an Information Management system and GIS; define infected area and control zones; prepare information for dissemination; operate inquiry service and Consult with provincial and local authorities regarding eradication operations.
- MAFF Tasks – Assist in distributing information to practicing veterinarians in BC; provide diagnostic and laboratory support; provide a provincial spokesperson; provide information on local agricultural conditions; provide assistance and advice regarding disposal of mortalities and ancillary activities and alert affected local authorities.
- PEP Tasks – Provide liaison advisor for planning & federal EOC for operations; provide information releases regarding BC government activities in support of eradication operations; collect and collate BC government and municipal costs for operations in support of CFIA and advise on suitability and application of emergency authority in Emergency Program Act.
- Ministry of Health Services Tasks – provide advice re health effects of outbreak to the public; Provide advice re PH aspects of eradication operations; approve disposal sites within local jurisdictions and facilitate availability of medications, vaccines etc.

The BC FADES plan worked as planned but some modifications / improvements could be considered. The Ontario Foreign Animal Disease Eradication Support (FADES):

- Includes mitigation, preparedness, response and recovery
- Specifies that Incident Management System will be used
- Illustrates that local government is expected to develop and maintain emergency response plans that include animal issues
- Illustrates that private industry is expected to actively participate to the fullest extent possible; industry assistance and expertise is considered indispensable in disease control and eradication
- Annexes include:
  - Communications Plan
  - Movement Control
  - Destruction, disposal, C&D
  - Data management and GIS mapping
  - Public Health and food safety

Summary of Panel Presentation – Mr. Bob Bugslag [27]
Mr. Bugslag outlined the structure and operation of emergency management in BC that provides an integrated response structure that is provincial in focus and not done within individual ministries. It provides a proactive system with a permanent Provincial Regional Emergency Operation Centre(s) (PREOCs) capable of immediate activation.

"Experience is a tough teacher. She gives you the test first and the lessons later"

PEP provided an integrated response to the avian influenza outbreak that involved activating PEP staff with provincial staffing levels peaking at 120. Ministry of Forests Protection crews were mobilized to assist in the depopulation of poultry flocks and Conservation Officers assisted with surveillance and enforcement. Joint communications were established with CFIA.

Response issues were:
- Lack of an integrated federal response model.
- Decision making needs to be delegated to the site.
- Risk based emergency management decision making is critical.
- Reinforce the top three problems during emergencies and disasters:
  - Communications
  - Ambiguity of Authority – who is in charge
  - Unplanned media situations – usually negative

Lessons Learned:
- Effective response requires a standardized emergency response management system.
- Systems need to be consistent across all levels of government to ensure interoperability.
- Training and exercising is required to review roles and responsibilities and concept of operations.
- The response model needs to be flexible so that it can be adapted to different situations.
- Recovery plans need to be developed and fully integrated with response plans.
- Mobilize provincial resources in support ASAP.

Moving Forward
- PEP should participate in the redevelopment of the FADES plan.
- Integrate federal and provincial response models.
- Regularly exercise plans.
- Utilize existing provincial structure and facilities.
- Commit "experienced" provincial resources

Mr. Bugslag closed his presentation with the following comment: "The only thing tougher than planning for emergencies and disasters is explaining why you didn't".

Summary of Panel Presentation – Mr. Don Beer [28]
Mr. Beer outlined the role of City of Abbotsford participation during the AI outbreak:
- City provided liaison support through to July, assisted in establishing emergency operation organization structure (British Columbia Emergency Resource Management System) and assisted with forward planning.
- Widened roads for decontamination checkpoints and closed roads to support disease containment plan.
- Identified local resources and suppliers and provided immediate assistance for equipment and resources.
- Assisted in open house information sessions and in setup of the Farm Stress Line.

Key Issues:
- Need for an Incident Management System – that include the five fundamental components Management, Planning, Operations, Logistics and Finance and Administration.
- Focus to plan ahead – Develop a plan if AI is discovered outside an established High Risk Region. Be proactive and see issues arising so they can be dealt with, not reacted to.
- Industry Participation – Industry contribution was significant with their contacts, knowledge, understanding and cultural effects on the individuals that make up the industry. Industry should be included in Emergency Planning and at the onset of the outbreak.
- Veterinarians should be utilized to work with the animals – CFIA Vets tasked to logistical support was inefficient. Utilize experts in the logistics field (Provincial Emergency Program, Ministry of Forests) who conduct this type of business on a frequent basis.

Keys to Success

- Establish relationships with Emergency Management Organizations.
- Utilize expertise of other organizations.
- List partners and people that can help prior to the event (industry, government, private sector).
- Establish emergency plans and test the plans.
- Be better prepared!!

Summary of Panel Presentation – Ms. Lisa Bishop[29]

Ms. Bishop reviewed the Avian Influenza crisis management from a national communications perspective and made the case that the first step is to establish information sharing networks:

Information Sharing Networks

- Phase 1 – information flows are shared within major groups before the information is shared between them.
- Phase 2 – Outlines how information is shared between the key groups, particularly:
  - Between Government Authorities and Industry
  - Between Industry and Stakeholder Groups.
- Phase 3 – Once information has been shared and cleared through the internal pathways, each group can communicate with its public audience.

Allocation of Resources – Create 3 key teams:

- Management Response Team – Ensures that resources (human, physical and financial) are made available and that critical decisions are made quickly.
- Operation Response Team – Ensures that the outbreak is stamped out as soon as possible.
- Communications Response Team – Ensures that internal and external audiences are fully informed throughout the crisis.

A member from each team must be on each other team – No one group should function independently of the others. Eases overall workload, allows for idea development, eliminates duplication. Credit: Institute for Crisis Management

Implement Overall Communications Response Team Plan:

- Gather information/determine audiences/ prioritize audiences
- Assess audiences' perspectives
- Develop strategies to react/manage the situation
- Coordinate a communications plan
- Alert/Inform internal audiences
- Delegate/implement tasks and continue information gathering
- Manage the aftermath as carefully as the crisis itself

Partnership – the trust and collaboration is key for all partners involved in the management of an avian influenza crisis. Perspectives, reactions and views must be given consideration before decisions are made and publicly announced.

Communications Response Team – During an avian influenza crisis, the Communications Response Team should be:

- Management Response Team member
- Operation Response Team member
- Principle Government Authority representative
- National Agencies representative
- Provincial Boards representative
- Public Relations firm representative (if required)
- 'Expert' spokesperson (if required)

The key to developing a strategy to maintain trust and guard values is an integrated internal and external communications strategy.

CONCLUSION

- The line between Crisis Management and Crisis Communications is inexorably linked during an avian influenza crisis. The Communications Response Team is the bridge between the Operational and Management Response Teams and the groups in the information sharing network.
- This coordinated response allows for idea development, eases overall workload, eliminates duplication.
- The key to successful avian influenza crisis management lies in the coordination of the response and the flow of information within the groups.

Ms. Bishop also produced a discussion paper on the communication perspective of the Avian Influenza outbreak.[30]

Summary of Panel Presentation – Mr. Derek Janzen[31]

Mr. Janzen outlined the BC Emergency Response Planning initiative being undertaken by the BCERP Committee which is a subcommittee of the BC Poultry Association (Associations of: BC Egg Producers, BC Hatching Egg Producers, BC Chicken Producers, BC Turkey Producers, BC Specialty Birds)

Ag bags filled with compost

The Emergency Response Plan will enable early containment of a disease outbreak through the immediate destruction of the infected flock. The elements of the plan are:

- Detection and Notification
- Containment
- Destruction
- Surveillance
- Disposal
- Cleaning and Disinfection

From this drafted framework, each step in the process will be further defined and detailed protocols written.

The key to the BC Emergency Response Plan is the early preemptive slaughter of a suspected disease infected flock without waiting for final laboratory confirmation. A method of compensating the flock owner is required in the event that the suspect disease is not confirmed or if it is confirmed to obtain compensation under the Health of Animals Act since the present regulation requires that CFIA must order the slaughter.

PANEL 4 – INDUSTRY AND COMMUNITY ECONOMIC RECOVERY

INTRODUCTION

What was the extent of the economic cost to the community and the industry? How well did existing support programs work? What new programs are required? Panel 4 examined these questions and others.

CHAIR AND MEMBERS

The Industry and Community Economic Recovery Panel was chaired by Mr. Harvey Sasaki, Assistant Deputy Minister, BC Ministry of Agriculture, Food and Fisheries. The panel chair provided overview comments and context for the panel presentations. Panel members were:

- Mr. John Berry, Regional Director, Agriculture
- Mr. Jay Teichroeb, Economic Development Manager, City of Abbotsford
- Mr. Robin Horel, President and CEO, Canadian Poultry & Egg Processors Council
- Mr. Garnet Etsell, President, British Columbia Turkey Growers Association and Mr. Errol Halkai, General Manager, Canadian Broiler Hatching Egg Marketing Agency.

Poulty industry is a sophisticated industry completely integrated into the local economy

Summary of Panel Presentation – Mr. John Berry[32]

Mr. Berry outlined the economic impact of the avian influenza outbreak and the mitigation measures that were applied.

Opening Comments:

- The impact of avian influenza was mostly economic in nature, but AI also caused social and emotional strain on local communities.
- It tested the ability of industry, governments and communities to work together to respond appropriately to the needs of affected parties.
- We have the opportunity to learn from the AI experience and apply its lessons to help position the poultry sector for long-term profitability.

Summary of Panel Presentation – Mr. Derek Janzen[31]

Mr. Janzen outlined the BC Emergency Response Planning initiative being undertaken by the BCERP Committee which is a subcommittee of the BC Poultry Association (Associations of: BC Egg Producers, BC Hatching Egg Producers, BC Chicken Producers, BC Turkey Producers, BC Specialty Birds)

The Emergency Response Plan will enable early containment of a disease outbreak through the immediate destruction of the infected flock. The elements of the plan are:

- Detection and Notification
- Containment
- Destruction
- Surveillance
- Disposal
- Cleaning and Disinfection

From this drafted framework, each step in the process will be further defined and detailed protocols written.

The key to the BC Emergency Response Plan is the early preemptive slaughter of a suspected disease infected flock without waiting for final laboratory confirmation. A method of compensating the flock owner is required in the event that the suspect disease is not confirmed or if it is confirmed to obtain compensation under the Health of Animals Act since the present regulation requires that CFIA must order the slaughter.

PANEL 4 – INDUSTRY AND COMMUNITY ECONOMIC RECOVERY

INTRODUCTION

What was the extent of the economic cost to the community and the industry? How well did existing support programs work? What new programs are required? Panel 4 examined these questions and others.

CHAIR AND MEMBERS

The Industry and Community Economic Recovery Panel was chaired by Mr. Harvey Sasaki, Assistant Deputy Minister, BC Ministry of Agriculture, Food and Fisheries. The panel chair provided overview comments and context for the panel presentations. Panel members were:

- Mr. John Berry, Regional Director, Agriculture
- Mr. Jay Teichroeb, Economic Development Manager, City of Abbotsford
- Mr. Robin Horel, President and CEO, Canadian Poultry & Egg Processors Council
- Mr. Garnet Etsell, President, British Columbia Turkey Growers Association and Mr. Errol Halkai, General Manager, Canadian Broiler Hatching Egg Marketing Agency.

Poulty industry is a sophisticated industry completely integrated into the local economy

Summary of Panel Presentation – Mr. John Berry[32]

Mr. Berry outlined the economic impact of the avian influenza outbreak and the mitigation measures that were applied.

Opening Comments:

- The impact of avian influenza was mostly economic in nature, but AI also caused social and emotional strain on local communities.
- It tested the ability of industry, governments and communities to work together to respond appropriately to the needs of affected parties.
- We have the opportunity to learn from the AI experience and apply its lessons to help position the poultry sector for long-term profitability.

- All sectors need to be prepared for future crises, and be ready to respond quickly and in a coordinated fashion to minimize costly adjustment.

Impact

- The value of lost production at the farm level is estimated at 180-185 million dollars which is partially off-set by costs not incurred.
- Beyond the primary sector, the AI crisis impacted the performance of service providers serving the industry, and local businesses.
- The specialty bird sector suffered losses similar to other parts of the industry but also had loss of specialty genetic material and some specialty production cycles are comparatively long, resulting in delays to full recovery.

Mitigation

Affected parties were able to take advantage of a broad suite of government programs and initiatives that were in place when the crisis unfolded.

- Regulations under the Health of Animals Act, administered by the CFIA, provide compensation at market value for birds ordered destroyed, as well as any related costs incurred in the destruction and disposal of birds. Over $63 million has been paid out to poultry producers under this program.
- A second source of compensation is the Canadian Agricultural Income Stabilization (CAIS) program, which is funded by both the federal government and the provinces.

  CAIS integrates stabilization and disaster protection into a single program, and replaces the Net Income Stabilization Account (NISA) and the Canadian farm income program (CFIP).

  CAIS payments are based on margin levels and since many factors have a bearing on margin it is too early to predict what the level of CAIS payments will be. In addition, producers of supply managed products receive assistance only when their production margin drops by over 30 percent.
- Employment Insurance (EI) provided the following support:
  - 700 persons employed in the poultry industry applied for regular EI benefits
  - 12 applications were approved for the EI Workshare Program that provided part time EI benefits to 384 employees avoiding 146 additional layoffs.
- To provide product to processors, hatcheries and graders, International Trade Canada provided access to imports through the use of Special Supplemental Imports (SSI) permits. The Canadian Egg Marketing Agency continues to facilitate the import of table and processing eggs though the use of SSI permits. This product is provided at the BC domestic price. Any economic advantage is used to offset producer losses, since restocking of the laying egg sector will not be complete until the fall of 2005.
- BC chicken and turkey producers have leased some of their production quotas to other provinces with the income being used to offset extraordinary costs as the result of the AI outbreak.

Summary

- Taken as a whole, it is important to understand whether this suite of programs and initiatives has provided sufficient and reasonable coverage for adjustment.
- Moreover, it's important to know how well integrated are these programs? How seamless is delivery? Were affected parties offered an acceptable standard of program delivery?

Summary of Panel Presentation – Mr. Jay Teichroeb[33]

Mr. Teichroeb provided a perspective on the impact of the AI outbreak on the local community.

About Abbotsford:

- 5th largest City in B.C.
- Diversified export oriented economy
- Economic Engines
  - Precision manufacturing
  - Aerospace
  - Farming – Largest farm gate receipts in the Province ($450 million per year). Billion dollar industry locally when you include agri-industrial output

"A bird on Matsqui Prairie gets sick... a worker in an industrial/ commercial loses their job"

Poultry Industry – The local hurt:

- 1700 people who lost or had reduced employment
- An increase of 500 people a month visited the Food Bank in July/August
- 2 feed mills closed
- Agricultural related EI claims doubled – 925 EI claims directly related to the poultry industry
- 86% increase in late farm class tax payments

Local observations:

- We must preserve the infrastructure of the industry
- Loss of skilled workers
- Specialty flocks that can not be replaced
- Mills that close
- Markets that are lost

This crisis was more than just a CFIA, Ag Canada, BCMAFF problem.

Summary of Panel Presentation – Mr. Robin Horel[34]

Mr. Horel reviewed the role of CPEPC during the AI outbreak, key issues in responding to the supply deficit, lessons learned, issues to be resolved and moving forward.

Role of CPEPC – facilitated agreement(s) to meet the goals of the Replacement Supply Programs (RSP):

- Supply customers in as seamless a manner as possible.
- Must be compatible with producer needs.
- Allow processors, graders, further processors and hatcheries "a business to return to" (provide product to maintain the customer base).

Key Issues:

- CFIA – Industry Co-operation
  - establish key contacts on both sides
  - Utilize industry knowledge to advantage
  - Establish communications plans ahead of time
- Movement Restrictions
  - Managing the needs of the supply chain as well as the science based requirements of disease control
  - Consider the needs/issues of customers and processors in the affected zone and issues of exporters across the country.
- Determining RSP need
  - Determine the probable amount of product lost and the repopulation schedule …ASAP
  - Determine by commodity the need for replacement supply:
    - A. few barns/farms – no RSP needed
    - B. enough product loss to trigger RSP (domestic surplus or imports)
    - C. large loss, long period need imports and Domestic Supply Program (DSP)
- Speed of Response
  - Time lost cannot always be made up – DSP's take time
  - Minimize response (have templates in place, pre-determined industry team to deal with issues)

Lessons Learned

- Tools at Industry's Disposal
  - Delayed production
  - Temporary Restricted Quotas (TRQ) to access imports
  - Fast Track Supplemental Imports facilitated by Special Ad Hoc Industry Advisory Committee (SAHIAC)
  - Domestic Supply Programs
- Commodity Specific Plans Required
  - Chicken – large volume, just in time supply chain, large % fresh product, fast life cycle, tight size requirements for some customers.
  - Table Eggs – large volume, inventory in the Canadian supply chain, geographic issues for DSP, CEMA role (surplus removal and management, import expertise), large production, very long life cycle.
  - Turkey – very seasonal, storage stock situation (fresh vs. frozen), long life cycle.
  - Broiler Hatching Eggs – inventory in the Canadian supply chain, large % of imports, geographic issues for DSP, very large production and long life cycle.

– Non supply managed hatchery businesses are important and need to be considered.

- Market cycle matters
  - Time of year affects specific commodity demand
  - International market conditions (especially USA) – price impact and product availability
  - Domestic market conditions

Issues to be Resolved

- Product Movement Protocols (Science vs. Politics)
  - Communications management team established – Industry to CFIA – CFIA to Industry
  - Build the relationship so it can be utilized in the crisis
  - Make the hard decision ASAP – must be science based

Moving Forward

- Establish movement protocols
- Establish templates for Producer Economic Rent (quota use)
- Establish templates for Domestic Supply Programs
- Establish templates for SAHIAC issues
- Pre-determine industry participants for each of the above
- Keep the "play-book" up to date

Summary of Panel Presentation – Mr. Garnet Etsell and Mr. Errol Halkai[35]

Mr. Etsell and Mr. Halkai reviewed issues of Industry and Community Economic Recovery from the Producer Viewpoint.

What was the economic cost? Industry along with AAFC and BCMAFF established an Economic Impact Committee and developed models to project the economic impact. The following are the results:

GROSS ECONOMIC COST	
Farm Gate Receipts	$194,000,000
Secondary Economic Impact	156,000,000
Hatchery & Processing	23,000,000
Out of Pocket Costs	7,500,000
TOTAL	$380,500,000

NET MARGIN & OUT OF POCKET COST	
Farm & Farm Organizations	95,400,000
Less Health of Animals Pyt.	(63,700,000)
Less Quota Lease	(1,200,000)
NET	30,500,000
Farm Supply	10,900,000
Processing	21,900,000
TOTAL	$63,300,000

Issue #1 Compensation under the Health of Animals Act.

- Definition of Market Value
  - to remove uncertainty need formula that makes economic and agronomic sense.
  - establish valuation procedures that use the established discounted production value stream generated by the asset.
- Schedule of Values
  - establish regular review process.
  - update maximum values for primary breeders and specialty birds.
- Personnel Administering Compensation
  - consider using finance people with business evaluation experience.

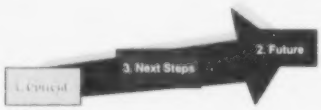
Issue #2 Developing a National Compensation-Insurance Program.

- Preemptive Cull Program – contagious diseases can rapidly spread over large area; need to act quickly to curtail spread. Isolate or cull infected flock, followed by immediate cleaning and disinfecting – preemptive cull of index and secondary flocks could limit spread of contagious diseases. Need compensation program that supports this program. Compensation fund would be part of program to compensate producers affected by preemptive cull.
- CFIA compensation policy review within the Health of Animals Act – Consider changes to enable payment to support the proposed containment policy. If confirmed positive and reportable – CFIA would compensate producer, if not, fund would be used to compensate producer.

- Funding Option – Reciprocal Insurance Exchange (RIE)
  - Similar to mutual insurance
  - Producers agree contractually to share the loss of a member for a specified peril
  - Flexibility in what can be covered
  - RIE can obtain re-insurance
  - RIE in place since 2003 to cover Ontario hatching egg producers
- Pros of RIE
  - Could be in operation in thirty to sixty days
  - There is no capital and surplus requirement
  - There would be no agents' or brokers' commissions
  - Flexibility in insurance coverage can be provided
  - Possible to develop good loss control programs for the members
- Cons of RIE
  - No fixed cost of premiums
  - A commitment of up to three years is needed
  - There must be 100% producer participation
  - The reciprocal insurance exchange is in competition with commercial insurers
- Discussion -Funding
  - How would a fund be established – levies, producer premiums, etc?
  - What is the extent and scope of compensation?
  - What amount will members pay out of their own pocket in the beginning?
  - Given the potential for significant savings, is it logical for CFIA to provide funding for the compensation pool?
- Discussion – Operational
  - What are the legal and liability issues related with industry-led preemptive slaughter?
  - Is it reasonable to consider situations where industry acts first and tries to cost-recover from the government?
  - What structure needs to be developed to administer this program?
  - What infrastructure is needed at the provincial level to create an effective and efficient disease mitigation plan?
- Discussion – Operational
  - What criteria will be in place for producers to access an industry compensation fund ?
  - Will participation in a program such as a biosecurity program be mandatory?
  - If yes, what type of participation will be required specifically (i.e. Biosecurity, on-farm food safety, etc.)
  - Who will ensure that this criterion is met?
  - Will this be a national poultry program or should this program be tailored to the provincial or commodity level?

Forum Outcomes

During the Forum, information and recommendations provided by speakers and panels, was gathered and summarized. The format chosen for the summary is as follows:



1. Current – identified present challenges
2. Future – the desired end-state for the Panel theme
3. Next Steps – key actions to be undertaken in the near future

These summaries were reviewed and approved by Forum Conveners and then presented to Forum participants. Forum participants provided further input and validated the results.

Following are summaries of Panel Outcomes for each of the four panels.

Panel 1 Outcomes

ANIMAL AND HUMAN HEALTH INTERFACE – CURRENT

- Lack of mutual understanding of expected roles and authorities for different organizations.
- Inconsistent emergency response structures.
- CFIA's AI procedure manuals require updating to incorporate the public health assessment of AI risk.
- Marginal local public health capacity (e.g. materials, personnel, etc) to respond to future events.

ANIMAL AND HUMAN HEALTH INTERFACE – FUTURE

- Strong animal/human disease expertise within the PHAC and within HC, and WHPSP.
- Strong, coordinated response to issues of potential animal/human disease interface that covers:
- Data collection and analysis
- Lab and clinical investigations
- Biosafety and biosecurity issues
- Analysis and dissemination/publication of results
- Increased awareness and understanding amongst stakeholders of animal disease response plans and their links to public health emergency plans.
- Creation of a nationally integrated testing and surveillance system, including federal and provincial resources.

ANIMAL AND HUMAN HEALTH INTERFACE – NEXT STEPS

- CFIA and PHAC to convene first Animal Health/ Public Health Forum.
- Animal and public health experts within CFIA and PHAC to combine capabilities to generate better integrated knowledge about zoonotic diseases.
- CFIA, PHAC, HC, WHPSP and Provincial agencies to establish protocols including occupa-tional health measures that ensure animal outbreaks are investigated and controlled through a team approach encompassing animal and human health.
- CFIA to undertake with all provinces.

Panel 2 Outcomes

BIOSECURITY – CURRENT

- There are a wide range of on-farm biosecurity measures in place.
- There is no mechanism to define the required changes to biosecurity on each individual farm.
- There is no auditing process that regularly assesses farms for compliance to minimum standards.
- The BC Poultry Industry Enhanced Biosecurity Initiative has recently completed:
  - Framework document with objectives and terms of reference.
  - Minimum Biosecurity standards.
  - Producer self- assessment guide.
  - Biosecurity workshop.

BIOSECURITY – FUTURE

- Consistent national approach to:
- Biosecure production and distribution of commercial poultry and poultry products.
- Biosecurity standards with CFIA technical approval and effective compliance in place.
- Allied trades have their own enhanced biosecurity protocols in parallel.
- Each producer has systematically identified potential on-farm disease risk factors and has formulated a protocol to reduce that risk.

BIOSECURITY – NEXT STEPS

- Industry to establish a multi-stakeholder working group to develop national biosecurity standards and options for effective implementation.
- Industry to implement renewed biosecurity standards.
- CFIA, AAFC and Industry to examine the feasibility of establishing a pre-emptive destruction policy.

Panel 3 Outcomes

ENHANCED EMERGENCY MANAGEMENT – CURRENT

- Key industry risks include:
  - Density of commercial flocks
  - Large number of backyard flocks
- Communications issues included:
  - Who needs to know what?
  - Meeting the ever-increasing information requirements/ desires
- Industry's contacts, knowledge and understanding were key contributions to emergency management and should be included in emergency planning from the outbreak onset.
- No formal industry emergency plan in place.

The only thing tougher than planning for emergencies and disasters is explaining why you didn't!

ENHANCED EMERGENCY MANAGEMENT – FUTURE

- Industry and Government Emergency Response Plans, strategies and relationships are established and understood.
- Industry and Government have an integrated approach to emergencies – combining management, operations and communications making optimum use of existing structures.
- Industry representatives, government agencies and stakeholders exercise developed plans on a regular basis.
- A coordinated internal and external communications strategy is established to maintain trust and public confidence.
- A national disposal strategy for mortalities is in place.

ENHANCED EMERGENCY MANAGEMENT – NEXT STEPS

- BC Government and CFIA to update FADES plan by implementing lessons learned and increasing emphasis on zoonotic potential of some diseases*

- CFIA and BC Governments to consult with BC Livestock Industries and other stakeholders to improve awareness of the FADES plan*
- BC Industry completes and adopts the Industry Emergency Response Plan.
- Government and Industry develop a national disposal strategy for all livestock mortalities.

* CFIA to undertake with all provinces.

Panel 4 Outcomes

INDUSTRY AND COMMUNITY ECONOMIC RECOVERY – CURRENT

- Significant losses to allied trades and local community.
- There are issues around inequities associated with the current compensation policy and concerns whether the policy is meeting its objectives.
- Health of Animals act compensation is tied to CFIA orders to destroy and may need to be revisited to support pre-emptive culls.
- Regulated system provided the opportunity using fast track import permits to meet market demands.

INDUSTRY AND COMMUNITY ECONOMIC RECOVERY – FUTURE

- Renewed Compensation framework under the Health of Animals Act.
- Industry managed business risk insurance plans in place.
- Community and allied trade economic impacts are recognized in recovery plans.
- Robust supply chain that meets consumer needs in line with science based requirements of disease control.

INDUSTRY AND COMMUNITY ECONOMIC RECOVERY – NEXT STEPS

- CFIA to undertake a review, in consultation with stakeholders, of the compensation policy available under the Health of Animals Act.
- CFIA to maintain a periodic review process for the Health of Animals Act schedule of values including new types of farmed animals.
- Government-Industry cooperation in the recovery phase to be enhanced by creating an integrated network of support services (financial, social, etc).
- Government to examine opportunities to mitigate community and allied trade economic impacts.
- Industry develops and implements Industry Risk Management Insurance Plan.
- Industry to propose tools and approaches for rapid pre-emptive culls (BC Industry Emergency Response Plan).

Summary of Recommendations from the Forum

The following recommendations were summarized during the Forum and presented to participants by Ross Husdon, Forum Coordinator. Participants agreed that these were the necessary "next steps" in the four areas addressed by the panels. These recommendations will be further developed and implemented by individuals and teams in industry and government. Proposed "leads" for each project are noted in column two.

1. ANIMAL AND HUMAN HEALTH INTERFACE – ACTION	LEAD ORGANIZATION/S
a. Convene first Animal Health/Public Health Forum	CFIA/Public Health Agency of Canada (PHAC)
b. Animal and public health experts to combine capabilities to generate better integrated knowledge about zoonotic diseases	CFIA/PHAC
c. Establish protocols including occupational health measures that ensure animal outbreaks are investigated and controlled through a team approach encompassing animal and human health.	CFIA, PHAC, Health Canada (HC) Workplace Health and Public Safety Program (WHPSP) and Provincial agencies
2. BIOSECURITY – ACTION	
a. Establish a multi-stakeholder working group to develop national biosecurity standards and options for effective implementation	AAFC/Industry
b. Implement renewed biosecurity standards	Industry
c. Examine the feasibility of establishing a pre-emptive destruction policy and develop tools and approaches for rapid pre-emptive culls (BC Industry Emergency Response Plan)	CFIA, AAFC, Industry
3. ENHANCED EMERGENCY MANAGEMENT – ACTION	
a. Update FADES plan by implementing lessons learned and increasing emphasis on zoonotic potential of some diseases	BC Government/CFIA. CFIA to undertake with all provinces
b. Consult with BC Livestock Industries and other stakeholders to improve awareness of the FADES plan	CFIA and BC Government
c. Complete and adopt the Industry Emergency Response Plan	BC Industry
d. Develop a national mortality disposal strategy for all livestock specialties	CFIA/Industry
4. INDUSTRY AND COMMUNITY ECONOMIC RECOVERY – ACTION	
a. Undertake a review, in consultation with stakeholders, of the compensation policy available under the Health of Animals Act	CFIA
b. Maintain a periodic review process for the Health of Animals Act schedule of values including new types of farmed animals	CFIA
c. Government-Industry cooperation in the recovery phase to be enhanced by creating an integrated network of support services (financial, social, etc).	BCMAFF
d. Examine opportunities to mitigate community and allied trade economic impacts	BCMAFF
e. Develop and implement Industry Risk Management Insurance Plan	Industry

Forum Conclusion

The Forum Conveners offered closing comments at the end of the day on October 28th and all agreed that there are opportunities to do things better, as identified at the Forum. As was said many times during the Forum, Conveners reiterated that no single agency can address all aspects of an outbreak such as AI and there is a need to work together to build plans and protocols that are practical and efficient. The President of CFIA was thanked by industry for being willing to discuss events in an open and candid manner.

The Conveners agreed that public health needs to be recognized as an important part of an animal health emergency and that biosecurity needs to be enhanced, not only locally, but nationally as well. Conveners emphasized that there needs to be a collaborative approach to emergency management, that FADES plans need to be redesigned and there is a need to "Practice, Practice, Practice". The President of the CFIA commented that he had consulted with legal counsel in the area of confidentiality regarding which flocks are infected during the disease outbreak and was advised that the issue can be addressed. The difficulties created by not knowing which farms were infected was one of the key issues raised by industry and this information was taken as evidence that CFIA had listened to concerns and meaningful changes would be put in place. In terms of disposal, it was agreed that facilities and protocols need to be in place and known to all parties prior to the next event. There was also agreement that matters of compensation have to be dealt with in advance of a crisis.

All conveners agreed that effective on-farm biosecurity was the first step in prevention and containment of any disease outbreak and that there is a need to have national biosecurity standards in place.

In closing, all Conveners made commitments to work together to implement the recommendations coming out of the Forum. There was a commitment to produce an action plan with follow up leads by the middle of November. This document was produced by CFIA and circulated to all participants on November 19, 2004. Most of the developed recommendations are expected to be actioned by December, 2005.

If the plan works: no one will see this individual again!

APPENDIX A
Chronology of Key Events

Avian Influenza (AI) Outbreak – British Columbia, 2004

February 6, 2004

- First signs of illness, slightly increased mortality and 10% drop in production observed in one of two flocks on a broiler breeder poultry farm (Farm #1) in the Fraser Valley.

February 9, 2004

- Farm #1 has 9,000 52 week old broiler breeders (Flock A) and 8,000 24 week old broiler/breeders (Flock B).
- Sample submitted from Flock A to BC Ministry of Agriculture, Food and Fisheries (BCMAFF), Animal Health Centre (AHC) by private practitioner. Flock A showing mild non-specific lesions, red tracheas, dark lungs.

February 13, 2004

- Samples yield suspect Avian Influenza (AI) by PCR (Polymerase Chain Reaction) – information is communicated to private practitioner who recommends "self-quarantine" – owner complies.
- Flock B is fine.

February 15, 2004

- Flock B increased mortality – Flock A mortality normal.

February 16, 2004

- AHC contacts Canadian Food Inspection Agency (CFIA) and advises PCR positive for AI.

February 17, 2004

- CFIA veterinarian picks up tissues from AHC from Flock A and Flock B.
- First signs of illness and increased mortality in Flock B, with mild respiratory lesions as seen in Flock A.

February 18, 2004 – DAY 1

- Samples arrive at National Centre for Foreign Animal Disease (NCFAD) in Winnipeg. NCFAD.
- HC advises BC Centre for Disease Control (BCCDC) of positive AI.
- BCCDC expresses concern about not being informed by AHC directly and earlier of suspected AI. BCCDC implements enhanced surveillance for human AI infections.
- AHC advised of AI confirmation late in the day during national teleconference.
- BCCDC advises BC Provincial Health Officer.
- Dramatically increased mortality in Flock B observed.

February 19, 2004 – DAY 2

- CFIA confirms the isolate from Flock A to be subtype H7 with an HA gene sequence compati. with low pathogenicity AI (LPAI) and farm is placed under quarantine.
- CFIA directs depopulation of farm and establishes a 5km zone of active surveillance and containment is established around the farm.
- CFIA notifies Office International des Epizooties (OIE) and the United States Department of Agriculture (USDA) of suspected AI outbreak.
- CFIA BC Emergency Office Centre (BCEOC) activated.
- Mortality continues to increase in Flock B.

- Fraser Health Authority (FHA) commences "Flu Symptom Watch" on workers/contacts. FHA learns of workers with conjunctivitis and reports that 5/9 exposed workers have reported mild respiratory symptoms.
- Provincial Health recommends antiviral prophylaxis and human "flu" vaccine for persons in direct contact with infected chickens. HC issues note saying this is under review.
- BCCDC confirms three workers test negative for Flu A.
- Various news releases indicating mild strain of flu found in BC, not the same type as Asian situation and that chickens and eggs are safe for human consumption.
- CFIA News Release – "Avian Influenza Detected in British Columbia, Risk to Human Health Low".

February 20, 2004 – DAY 3

- News conference involving CFIA, BCCDC, Fraser Health Authority (FHA) and BCMAFF (AHC). CFIA confirms LPAI.
- Intense media presence around farm site.

February 20, 21, 22, 23, 2004 – DAY 3, 4, 5, 6

- Farm #1 is depopulated by CO_2 euthanasia.
- On-farm composting site reaches capacity and remaining 40% of carcasses are placed into sealed totes.
- NCFAD further tests show the virus from Flock A to be LPAI, H7N3 and from Flock B to be H7.
- Various media releases indicate Health officials to determine whether 5 people with flu-like illness contracted AI from infected chickens.
- HC media release indicating Singapore, China, Japan and Hong Kong have announced various restrictions on Canadian poultry.
- CFIA news release – "Low Pathogenic Avian Influenza in British Columbia".

February 24, 2004 – DAY 7

- Collapse of previously planned Fraser Valley disposal options for infected birds.
- Reefer trucks take totes to a curtain burn site in Princeton. Site chosen because it could be accessed quickly, since the local Greater Vancouver Regional District (GVRD) operator was unable to incinerate the carcasses, without an order to do so, due to permitting restrictions.
- Provincial Health Officer expresses concern to CFIA about notification lag and communications issues.
- Poultry industry communications plan activated.

February 27, 2004 – DAY 10

- CFIA advised that pathogenicity of virus from Flock B is LPAI.

March 3, 2004 – DAY 15

- CFIA BCEOC officially shut down.

March 8, 2004 – DAY 20

- Further NCFAD tests show that both Low Path (Flock A) and High Path (Flock B) AI were present on original BC farm (Premises #1).

March 9, 2004 – DAY 21

- Farm #2 located 1.5 km from Farm 1 has 4 barns with 4 ages of broiler breeder chicken (3w, 13w, 33w, 45w), total 24,000. AHC notifies CFIA specimen from Farm 2 yields AI by PCR.
- CFIA quarantines Farm #2.
- Chilliwack media release – "Flu chickens burned, buried in Princeton…."
- CFIA news release – "Ongoing Testing on Fraser Valley, British Columbia Farm Reveals High Pathogenic Avian Influenza".

March 10, 2004 – DAY 22

- NCFAD confirms H7 Avian Influenza on Farm #2.
- CFIA establishes a 5 km High Risk Region (HRR) and a 10 km Surveillance Zone (SZ) with restrictions on the movement of poultry. Commercial flocks in the 10 km region and backyard flocks in the 5 km region will also be tested.
- CFIA BCEOC reopens.
- Various media releases stating "tests show bird flu was mutating at BC hatchery…"

March 11, 2004 – DAY 23

- Federal Minister of Agriculture announces control area in the Fraser Valley of British Columbia to prevent the spread of avian influenza. Restrictions placed on the movement of poultry and poultry products.
- CFIA confirms HPAI present on Farm 2.
- Vancouver Sun media release – "Outbreak on farms appear linked".

- CFIA news release – "Minister Declares Avian Influenza Control Area in Southern British Columbia".

March 12, 2004 – DAY 24

- City of Abbotsford activates their Emergency Operations Centre (EOC) to Level 1.
- Provincial Regional Emergency Operations Centre (PREOC) is activated to level 1 in support of City of Abbotsford and CFIA operations. The Provincial Emergency Coordination Centre (PECC) is also at a monitoring level.
- CFIA National Emergency Operations Center (NEOC) minimally activated in Abbotsford.
- CFIA news release – "Highly Pathogenic Avian Influenza Confirmed on Fraser Valley Farm".
- Canadian Press – "Canada to Fight Ban on Poultry Products".

March 13, 2004 – DAY 25

- OIE officially notified of HPAI in Canada – US closes border to shipments of BC poultry and poultry products.
- Depopulation of Farm #2 initiated.

March 15, 2004 – DAY 27

- Industry holds media training sessions to emphasize visibility and involvement of poultry producers.
- City of Abbotsford establishes road closures and sanitation stations on the border of the HRR.
- PEP tasks Search and Rescue Team to distribute AI and road closure information to people living in the HRR.
- To date, 27 countries have suspended imports from either all of Canada or only British Columbia

March 16, 2004 – DAY 28

- A revised map of the Control Area, HRR and SR posted on the CFIA website. Information brochure is distributed via Canada Post to all homes in the HRR and SR. Producer booklets with responsibilities distributed. 1-800 line, radio public service announcements, and website.
- A person involved in culling of infected birds on March 13/14, reported conjunctivitis and nasal discharge. Treatment with oseltamavir began March 18.
- Truck containing bird carcasses found leaking in a parking area. Transportation protocols changed. CFIA conducted environmental assessment and cleanup at the site.

March 17, 2004 – DAY 29

- BC chicken processors announce they have no more storage capacity with 500,000 kg of chicken still on non infected farms to be slaughtered. Meeting held with five National Industry Association representatives. Industry has prepared a proposal for options for movement of birds from surveillance region and control zone. CFIA prepares an impact assessment of the proposal.
- PEP South West Regional Manager and Temporary Emergency Assignment Management System (TEAMS) members begin to attend at CFIA EOC.

March 18, 2004 – DAY 30

- Depopulation of Farm 2 complete (nine days after testing positive by PCR).
- Conjunctivitis and positive Flu A from NARES exposed March 13th. Provincial Health informs HC re the use of Tamiflu.
- Restrictions on poultry products modified to allow movement of cooked and processed product beyond the control zone. Movement of fresh chicken still restricted.
- CFIA, BCMAFF and BCWLAP develop Avian Influenza Manure Handling Options Paper.

March 19, 2004 – DAY 31 (10 days after 2nd case)

- Farm 3 located in the HRR with 8,500 broiler/breeders suspected by CFIA as HPAI by "gross evaluation". Sudden, increased mortality, lesions consistent with previous AI farms, massive mortality over weekend.
- Poultry industry proposes to voluntarily depopulate the commercial barns within the HRR. Considered by CFIA and deemed inappropriate with the information available at that time.
- Mytel media release – "Avian flu not spreading say inspectors…"

March 22, 2004 – DAY 34

- H7 detected in workers and conjunctivitis.

March 23, 2004 – DAY 35

- Two additional flocks within the HRR test positive – total infected farms is 5 (all commercial operations).
- CFIA determines that quarantines will not be placed on infected premises inside the HRR, as this region already restricts movement of animals and products off farms.

- Destruction of #3 Farm completed today and transported to Princeton site for incineration.
- Concerns raised over reporting to Provincial Health and workers surveillance.

March 24, 2004 – DAY 36

- CFIA Vice President declares Avian Influenza crisis in BC an emergency and the National Emergency Operations Center is fully activated.
- BCMAFF provides a tele-seminar for industry with 200 phone lines.
- CFIA activates and announces depopulation of the HRR zone.
- Chicken processors at maximum storage capacity and begin laying off workers and shutting down processing lines.
- BCCDC requires that workers adhere to personal protective equipment. BCCDC further requires that workers with exposure to avian influenza infected or potentially infected material are vaccinated at least two weeks before working in this setting (time for vaccine-induced material to develop). If workers have not been vaccinated two weeks in advance, they may be permitted to work if they are vaccinated beforehand and take oseltamivir prophylaxis as prescribed during the week period following immunization. Labour pool advised of requirements.
- CFIA news release – "CFIA to Depopulate High-Risk Region to Limit Avian Influenza Spread".

March 25, 2004 – DAY 37

- CFIA lab tests confirm that all five farms are infected with H7 Avian Influenza. Further tests are being conducted to determine the level of pathogenicity for premises # 3, 4, 5.
- CFIA agrees to share confidential information with BCMAFF and use the AHC for preliminary PCR testing.
- Depopulation of Farm 3 is completed 11 days after PCR detection.
- CFIA receives letter from Town of Princeton stating disapproval of disposal and incineration near their community.
- CFIA has permit extension from BCWLAP to continue incineration at Princeton site.
- Letter from FHA on AI and human health given to CFIA to distribute to workers.
- CFIA assigns occupational health nurse for CFIA employees.

March 26, 2004 – DAY 38

- 38 countries have suspended imports from either all of Canada or only British Columbia (28 all of Canada, 14 BC only).
- Poultry industry proposes that CFIA allow product outside of CA to ship to the rest of Canada under permit.
- Biosecurity handout completed. Information to Abbotsford Police and Fire Rescue Service about AI and ways to protect themselves.
- Depopulation complete on 5 infected premises today.
- Concerns raised with Provincial Health Officer about transport of birds.
- Concerns raised over contract labour practices re occupational health – casual labourers hired and no protective equipment provided.
- Open Door (shelter) manager calls to relay concerns over chicken feces and feathers at her shelter.

March 27, 2004 – DAY 39

- FHA sends letter to regional medical doctors.

March 28, 2004 – DAY 40

- CFIA President meets with BCMAFF Deputy Minister and Poultry Industry representatives.

March 29, 2004 – DAY 41

- CFIA quarantines a broiler farm outside the HRR. AHC could not confirm presence of AI.
- PEP Director requests that Central Coordination Group (CCG) have a conference call Wednesday AM, March 31st to support CFIA in overall coordination efforts.
- CFIA news release – "Farm Quarantined After Avian Influenza Suspected".

March 30, 2004 – DAY 42

- CFIA holds teleconference with Provincial Veterinary Officers.
- Poultry Industry to submit provincial proposal regarding movement of fresh and frozen poultry.
- Samples from the index flock have arrived at Weybridge Laboratory for testing.

- HC concludes the first reported worker's illness caused by Avian Influenza (H7N3).
- BCCDC notes 11 reports of A1 associated human illness. Recommendations for workers expanded to require Tamiflu prophylaxis for all workers on all farms as opposed to only workers on infected farms. Workers without influenza immunization or oseltamivir prophylaxis excluded from work in HRR.

March 31, 2004 – DAY 43

- To date, 16 backyard flocks and 8 commercial flocks in the HRR have been depopulated.
- To date, 5 commercial flocks in the HRR were positive for low (one flock) and high pathogenic H7 avian influenza, including one farm outside HRR.
- Representatives from BCCDC and HC visit the BCEOC.
- Meeting with BCMAFF/Industry/PEP/WLAP to discuss positive manure disposal options.
- HC informed World Health Organization (WHO) of first case of H7 isolation in a poultry worker. Symptoms had fully resolved.
- CFIA, BCMAFF, BCWLAP and Poultry Industry agree that composting preferred method for dead bird and litter treatment where possible.
- CFIA news release – "Avian Influenza Confirmed in Control Area".

April 1, 2004 – DAY 44

- A layer farm near the Abbotsford airport (well outside the HRR) tests positive for AI. Poultry Industry requests expansion of the HRR and SZ.
- CFIA directs that all flocks testing positive for AI will now be depopulated rather than waiting for H7 confirmation.
- Public health issues a news release confirming a second H7 isolation in a poultry worker.
- CFIA and industry meet for the first time at EOC. Industry's assessment of situation is that they need more input into the process. Industry liaison person appointed by CFIA.
- Princeton Mayor refuses to take additional birds for incineration.
- HC officials visit BC.

April 2, 2004 – DAY 45

- Federal Agriculture and Agri-Food (AAFC) Minister and CFIA Chief Veterinary Officer met with BCMAFF, including Minister and representatives of the Poultry Industry. Toured BCEOC and HRR. Industry proposes depopulation.
- Poultry Industry requests that HRR be expanded to encompass entire Fraser Valley with systematic depopulation of all estimated 19M birds including backyard flocks. Industry expresses concern over the time taken to remove manure from infected farms – Farm 1 still has manure in barns.
- NCFAD shares testing protocols with Vet Lab.
- Rendering companies agree to take birds testing negative for AI.
- WHO informed by HC of a second poultry worker in BC identified with avian influenza (H7N3). Treated with oseltamivir on March 25 and symptoms resolved. Based on this information, WHO raised the global pandemic preparedness level for the Canadian outbreak.
- Central Coordinating Committee (CCG) established to coordinate the eradication of AI in the Fraser Valley and provide policy direction on AI consequence management. Committee consists of Assistant Deputy Ministers and Public Affairs from BC government ministries, PEP, CFIA, PSEPC/RD and HC.
- The BC Solicitor General issues a Ministerial Order under the Emergency Program Act for the GVRD to provide assistance to CFIA with the use of the Burnaby incinerator site for the disposal of test positive birds.
- CFIA announcement re movement restrictions, biosecurity, possible means of transmission, Federal AAFC Minister visits Control Area.
- BC Provincial news release – "Provincial Order Clears Way for Swift Action on Avian Flu".

April 3, 2004 – DAY 46

- Deputy Minister's Working Group conference call – similar to CCG meeting, to ensure coordinated executive level support to CFIA.

April 4, 2004 – DAY 47

- Weybridge lab confirms the NCFAD diagnosis. Of 15 reports of human illness, H7N3 identified in 2 people.
- Combined Deputy Ministers/Central Coordination Group conference call held by province regarding provision of support to CFIA. Combined calls, or separate DM and CCG calls are held almost daily from this point forward, to provide a coordinated response in support of CFIA operations. Federal representatives, including CFIA executive and command staff, are invited to take part in the majority of calls.
- South West Region (SWE) Provincial Regional Emergency Operations Centre in Surrey is activated to level 2 as a result of health and environmental concerns.

April 5, 2004 – DAY 48

- Federal AAFC Minister announced entire Fraser Valley as the Control Area (CA). All poultry in the CA will be depopulated. This will encompass approximately 15 million birds. Current movement restrictions will remain in place until midnight on April 13, 2004.
- CFIA charters airplane for daily runs to NCFAD. AHC ramps up to start testing pre-slaughter samples (<36 hours to slaughter). NCFAD arranges to provide AHC with required diagnostic equipment to facilitate testing.
- CFIA requires poultry owners to control access to their premises by affixing a notice at the entrance of their property prohibiting unauthorized entry to their farms.
- Estimated that BC poultry industry is losing approximately $2 million per week and hatcheries about $200,000 per week.
- The activation of provincial integrated response structure to support the AI event is announced by the Premier. CCG, PECC and PREOC (in Surrey) with liaison at CFIA EOC now fully implemented. The Deputy Minister's Working Group continues high level of engagement.
- Deputy Minister to the Premier and Cabinet Secretariat issues memorandum to all Deputy Ministers providing details as to the avian influenza outbreak and the associated risks, that the provincial integrated response structure has been fully activated, and that all provincial ministries and agencies will provide full resources as required in support of the provincial emergency structure and CFIA.
- European Union (EU) confirmed regionalization decision will be in effect today.
- National Occupational Safety and Health (OSH) Advisor arrived today in BCEOC.
- WHO uses H7 as seed strain for potential vaccine.
- CFIA compensation cheques now being issued.
- Composting of birds starts today. CFIA to hold off on the killing of more birds as there are too many birds and not enough ways to transport them.
- PREOC Logistics resources the CFIA request for shower facilities and haul trucks. The PREOC coordinates the provision of BC Ministry of Forest's wash trailers to CFIA crews and identifies options for the haul trucks.
- CFIA news release – "Depopulation of All Birds in British Columbia's Fraser Valley".

April 6, 2004 – DAY 49

- Two new positives; one in HRR and 1 in SR. There are a total of 20 infected commercial premises identified to date (13 in the HRR, 5 in the SZ and 2 in the CA).
- Three kilometer zones placed around the infected premises located outside HRR and SR.
- BCMAFF, CFIA and industry establish committee to decide best disposal or treatment option for each infected farm.
- Industry agrees to promote on-farm biological heat treatments (BHT) of positive birds and manure where feasible.
- PEP HQ senior staff members visit CFIA and BCMAFF EOC. Two meetings are held with CFIA senior staff. Suggestions are made based on previous lessons learned and the British Columbia Emergency Response Management System (BCERMS), to enhance overall operations.
- CFIA Media Update.

April 7, 2004 – DAY 50

- Media line established for AI calls.
- 3 new backyard flocks test positive for AI (2 in HRR; 1 in survey zone).
- Depopulation of all commercial flocks in HRR completed.
- CFIA/BCMAFF/Industry review team identify treatment and disposal plans for farms.
- CCG meeting directed key stakeholders to contact Netherlands re lessons learned.

April 8, 2004 – DAY 51

- CFIA announced decision to allow movement of fresh and frozen product from federal establishments in the CA to the rest of Canada.
- To date, 43 trading partners have taken action against Canada; 26 against all of Canada, 16 against live poultry and poultry products from BC and the EU has regionalized the CA.
- International Trade Canada (ITCan) agrees to establish a special supplementary import system to enable BC poultry processors and graders to access product from outside of Canada to address the lack of BC supply.
- Special Ad Hoc Industry Advisory Committee's (SAHIAC) are formed for chicken, table eggs and broiler hatching eggs that will provide recommendations to the Minister of ITCan for fast track supplemental import permits.
- Egg sector of BC Poultry Industry requests that CFIA amend regulation to allow the importation of ungraded eggs.
- CFIA and BCMAFF consult with University of Maryland about composting methods.
- Backlog of carcasses on farms rising. CFIA seeks permits/orders for landfill options. Chilliwack landfill is preferred.
- Telephone call with Netherlands re lessons learned in composting, barn cleaning, disinfection, backyard flock management, and public health issues.
- CCG issues AI Directive and PECC issues Preparedness Advisory – both documents detail overall provincial concept of operations in support of CFIA, and the roles and responsibilities of the various levels.
- CFIA requests the province provide assistance in the form of labour at both the PREOC and in the field. CCG requests Ministry of Forests (MOF) unit crew to assist with documentation control and tracking. Additional provincial resources deployed to Abbotsford EOC.
- Daily media clippings provided to AI team, daily news conferences, then back to 2-3 per week, or as required.
- CFIA/Province of BC announcement that depopulation of HRR completed.
- BC Provincial news release – "Provincial Order Ensures Safe Poultry Disposal Options".

April 9, 2004 – DAY 52

- Province issues Ministerial Order to allow CFIA to access GVRD landfills and incinerators for the safe disposal of infected chickens. GVRD to allow disposal at incinerator in Burnaby and landfill in Cache Creek. Chilliwack landfill also being used.

April 10, 2004 – DAY 53

- Policy on movement out of the control area of fresh and frozen poultry products and by products and general permit distributed to industry for immediate implementation.
- CFIA/Province of BC media update.

April 11, 2004 – DAY 54

- Meeting with PEP/CFIA agency staff/BCMAFF/Minister/Industry to express the urgency of the situation and to clarify roles. 400,000 infected birds need disposal and related odour is an issue.
- CFIA call emergency meeting with Province and industry and requests plans to handle up to 100 new infected farms over the next 10 days.
- Infected carcasses begin to move to Chilliwack landfill.
- Successful test burn at Burnaby incinerator – capacity 70 tonnes/day.
- HC Occupational Health Nurse visits and observes breach of Personal Protective Equipment. Human exposure and protection issues discussed and clear roles assigned.

April 12, 2004 – DAY 55

- 25 commercial flocks infected.

- Media tour of AHC lab (3 reporters).
- Depopulation still going too fast for disposal.
- CFIA, BCMAFF, Provincial Health and industry meet to start ramping up the depopulation procedure and explore options for central composting.
- CFIA regulated expanded control zone to take effect April 14th with mandatory testing and movement requirements.
- CFIA orders 2000 biosecurity signs to be put up on infected farms.

April 13, 2004 – DAY 56

- There are a total of 28 infected commercial premises identified to date.
- Daily conference calls with BCMAFF staff re disposal, testing, trade, surveillance, etc. Burnaby incinerator agreed to be a disposal option, but with reduced capacity and high costs.
- Community members in Chilliwack and Cache Creek voiced objections to use of their landfills.
- Public was informed today that if farmers destroyed birds themselves they would not be compensated…must be ordered by CFIA.
- CFIA media update.
- PREOC in Surrey to be officially moved to Abbotsford BCMAFF EOC to allow joint location and operations in support of CFIA.
- Ministerial Order issued for use of Delta landfill.

April 14, 2004 – DAY 57

- NCFAD lab capacity increases to 600 samples per day with additional equipment.
- AHC testing increased from 80 samples per day (conventional PCR) to 200+ by using RT thermocyler.
- PEP staff (in charge of coordination of the provincial integrated response structure efforts at regional level in support of CFIA) arrive to assist BCMAFF with disposal options and sets advanced planning procedures in motion.
- PEP staff meet with BCMAFF and CFIA staff to begin work on first Disposal Flow Chart.
- Public Information session- Aldergrove.
- Federal AAFC Minister declares Fraser Valley a control area to prevent spread of HPAI.

April 15, 2004 – DAY 58

- CFIA meets with National Industry groups to discuss movement of fresh and frozen products and by-products out of Canada.
- Major meeting in Abbotsford with senior federal, provincial and industry representatives present. Provincial Ministers, Deputies and industry leaders agree that cull is to be completed by May 21st. This meeting confirmed the province's desire to provide strong leadership and support of CFIA's and industry's efforts in meeting integrated objectives by a specific date.
- Depopulation committee struck – PEP/industry/CFIA.
- BC Emergency Management structure activated and co-located with CFIA in Abbotsford. Provincial operations centre in CFIA EOC is formally called the Provincial Emergency Operations Centre or PEOC.
- Presentation to Cabinet on BC emergency management structure and areas of opportunity in regards to avian influenza outbreak.
- Meeting at BCMAFF EOC with CCG and BCMAFF Minister to discuss disposal options. Work begins on first formalized integrated Disposal Plan.
- CFIA Regulations being drafted for movement of ungraded eggs from US to BC Control Area.
- CFIA begins series of open houses on AI. 29 commercial farms and 10 backyard premises affected.
- Chilliwack landfill capacity of 200 meters reached and deliveries stop.
- National day of action against factory farming.
- CFIA/Province of BC media update.

April 16, 2004 – DAY 59

- CFIA communicates farm biosecurity procedures to local SPCA, utility companies and first responders
- BCMAFF Minister and BC Solicitor General meet with 15 mayors about use of landfills and centralized composting.
- BC Premier orders PEP (in charge of coordinating provincial support) to support CFIA in disease eradication logistics.

- Farm stress line established.
- Central composting facility being considered.
- Open house information meeting at Aldergrove.
- GVRD incinerator in Burnaby set up. First shipment completed today and procedures went well. One farm completed with on-farm process using quick lime for composting.
- BC Provincial news release – "Coordinated Disposal Plan Speeds Avian Flu Clean Up and Premier Announces Resources to Address Avian Influenza".

April 17, 2004 – DAY 60

- There are a total of 31 infected commercial premises identified to date. All positive premises have now been depopulated.
- BC Solicitor General issues a Ministerial Order to facilitate enforcement. This became a greater concern as plans progressed for the destruction of backyard flocks and exotic birds.
- Disposal of test positive birds by on-farm composting begins. 4 farms are done in this manner today.
- PEOC/BCMAFF EOC staff produce first draft disposal plan and media messaging for use of Central Composting site for disposal of test negative birds. This is envisioned as being the preferred option for disposal of test negative birds.
- Additional large advanced planning room allocated by CFIA as part of PEOC, and additional small break-out rooms.
- BCMAFF receives 50 suggestions for dealing with disposal.
- Truck transportation arranged for movement of negative test birds to Central Composting site.

April 18, 2004 – DAY 61

- The PEOC begins work with BC Ministry of Forests Protection Branch to bring on crews early to assist with disposal of test negative birds.
- Part A "Commercial Flock Avian Disposal Plan" has been completed, which includes the first stakeholder agreed to flow chart of options for test positive and negative. Drafting of Part B, the "Implementation Phase" begins today. PEOC working with CFIA and other stakeholders to produce an integrated production of statistics. This is essential to tracking progress and providing a visual representation to senior officials and the media.

April 19, 2004 – DAY 62

- Meeting with Mayor of Abbotsford to agree on site for composting facility and that site would only receive negative test birds.
- Province completes plan for Central Composting site in Abbotsford.
- PEP supplies first BC Ministry of Forests crews to assist in the depopulation of non IP farms and first chickens move to Central Composting site from HRR.
- BCMAFF Minister says AI in Fraser Valley is still out of control.
- First statistical information provided as result of work done by PEOC in conjunction with other stakeholders and CFIA.
- Indications are cull will have to substantially increase if timelines are to be met. Initial projections are for full cull by late June. This has health risk aspects, and millions of dollars a week lost to the provincial economy. Industry and provincial representatives agree timeline must be sped up significantly.
- First "Backyard/Exotic Disposal" plan started today. Realized from post-operational reports from Netherlands this may become major issue.
- First official request from industry for initiation of a "Recovery Plan".
- Joint CFIA/Provincial GIS-based electronic unified data base process is being developed to include data gathering and tracking.
- Joint federal / provincial communications established at CFIA EOC as part of PEOC functions. Public information Forums now planned for April 24th at Abbotsford, April 28th at Maple Ridge, and May 1st at Cloverdale.
- Province completes the plan for a centralized composting site in Abbotsford. Industry will be a key player in ensuring this plan is successful.

April 20, 2004 – DAY 63

- CFIA issues revised policy on movement out of the control area of fresh and frozen poultry products and by-products and general permit to allow for

properly labeled products to enter only federal cold storages under special permit.

- 34 infected flocks.
- Destruction of backyard flocks initiated.
- There remains only 2 confirmed cases of avian infections in humans.
- PEOC works with industry and all levels of government to choose a central composting site.
- Contract signed between Province of BC and Central Composting site to compost avian material.
- CFIA media update.
- Joint Industry/provincial logistics section activated to meet requirements of negative test bird disposal.
- Joint industry/provincial logistics section activated at PEOC to meet requirements of test negative bird disposal. "Disposal Options" plan forwarded to CCG and DM Working Group via CCG for review and subsequent presentation to Cabinet April 21st.
- PEOC continues to coordinate use of MOF firefighting crews to assist in disposals.
- First integrated visual representation produced by PEOC with input from all stakeholders of cull rate and required cull rate. Visual depiction clearly shows that for May 21st or earlier timeline to be met, cull will have to significantly increase. Approximately 5 to 6 weeks behind intended target date set by Cabinet and industry.
- C&D standards being applied by farmers. Interior and exterior of all buildings on infected farm whether housing poultry or not, have to be disinfected. C&D must be complete for all infected farms for 21 days before restocking on any farm can begin
- BC Provincial news release – "Composting Site Approved for Non-Infected Birds".

April 21, 2004 – DAY 64

- Industry conference call to update industry on AI and the revised policy on the movement out of the control area of fresh and frozen poultry products and by products.
- Press conference to announce Central Composting site for test negative birds to assist in depopulation of hot zones near infected barns.
- Industry representatives take on leadership role in logistics and coordination of negative flock disposals.
- Industry representatives at PEOC take on major leadership roles in regards to the joint operations and coordination of test negative bird disposal. PEOC and industry ensure number of birds to market is maximized.
- PEOC works with local government representatives to enhance communications to local governments in the Lower Mainland. Daily report is developed for dissemination. Lower mainland emergency managers offer use of their websites to pass key public messaging.

April 22, 2004 – DAY 65

- ITCan authorizes Special Fast Track Supplemental (SFTS) import permits to enable BC egg graders to import 3M dozen of top grade loose table eggs for the initial period from April 5th to June 5th. Request to CFIA for change in regulations to enable imports of ungraded eggs put on hold.
- Canadian Egg Marketing Agency (CEMA) manages the imports and the grader pays the BC producer price. 36+ commercial farms affected.
- First test negative birds arrive at Central Composting site.
- Concerns raised over proposal to use inmates to help with disposal.
- PEOC putting financial processes in place to build on current CFIA reimbursement processes to allow for rapid payment to industry for assets used in on-site disposal of test negative birds. CFIA issues 54 payments, for a total of 2.8 million dollars.
- Draft "Backyard / Exotic Flock Disposal Plan" completed.
- City of Abbotsford Mayor and representatives tour CFIA EOC and PEOC.
- Media release – "Prisoners being trained for avian-flu poultry cleanup".

April 23, 2004 – DAY 66

- To date, 46 trading partners have taken action against Canada; 29 against all of Canada, 16 against live poultry and poultry products from BC and the EC has regionalized the CA.

- Update to provincial veterinarians by teleconference.
- CFIA media update.
- Integrated Geographic Information System (GIS) now in place.
- Minimum security corrections work team members begin assisting in the disposal operation of test negative birds. Inmate protocols reviewed.

April 24, 2004 – DAY 67

- Initiation of telephone survey of all producers in the control area to update the producer database; CFIA/BCMAFF lead.
- Abbotsford Public Information session.

April 25, 2004 – DAY 68

- CFIA establishes restrictions that prohibit the direct farm-to-consumer movement of birds and bird products.

April 26, 2004 – DAY 69

- The weekly CFIA Enforcement and Inspection Services report indicates there have been a total of 59 potential non-compliances referred to EIS for investigation. Issued 2 Administrative Monetary Penalties (AMP) for illegal movement of product and 2 AMP warnings for illegal movement of birds.
- Epidemiology presentation to BC Health.
- PEOC staff, BCMAFF and other agencies develop options for additional composting sites.
- One new farm tested positive in the Abbotsford hot zone.
- USDA testing and doing surveillance on a regular basis.

April 27, 2004 – DAY 70

- A duck farm has tested positive with real time matrix PCR. Further testing is taking place to identify the type of influenza.
- Federal/provincial BC DM meeting in Abbotsford to discuss biosecurity, testing protocols, progress, etc.
- Provincial Health due diligence review on biosecurity/biohazard risk assessment and risk management process.
- As result of meeting with PEOC senior staff, CFIA now promoting full composting on site of test positive birds using "ag bags".
- A new "Recovery Unit" is to work on integrated recovery issues. Basic framework to be completed by May 3rd, and presented to the CCG and DMs Working Group.
- Overall CFIA policy in regards to backyard and exotic flocks remains a significant issue at public meeting in Maple Ridge.
- Received written decision from HC on recommended use of Tamiflu.
- Conservation Officers deployed to assist CFIA with enforcement issues.
- Federal government directs that depopulation and disposal of backyard flocks be treated no differently than commercial producers.
- BC Cabinet sets date of May 24, 2004 for cull to be completed.

April 28, 2004 – DAY 71

- There are a total of 40 infected commercial premises identified to date. 40 positive premises have been depopulated.
- Compensation cheques for breeders and layers are held pending analysis of fair market value.
- ItCan authorizes SFTS import permits to enable BC chicken processors to import 9M kgs of eviscerated chicken for the initial period from April 19th to June 12th.
- Veterinary medical officer with USDA arrives at Abbotsford EOC today and will be a liaison officer with CFIA.

April 29, 2004 – DAY 72

- CFIA/Province of BC media update.

April 30, 2004 – DAY 73

- Meeting with BC industry at the BCEOC today to discuss compensation values. AAFC in attendance. The group agreed to re-convene on Monday. Some issues about unexpected change in policy by Ottawa.
- BCEOC and BCCDC meet today to discuss a proposed voluntary sero-survey to determine the prevalence of antibodies against AI in persons who are occupationally exposed to poultry.
- Media tour of CFIA Emergency Operations Centre.

May 01, 2004 – DAY 74

- Duck farm confirmed as H11.

- Public Information Session – Cloverdale.
- Little progress has been made on C&D. No farms signed off today, despite numerous inspections.

May 03, 2004 – DAY 76

- New Zealand veterinarians visit BCEOC this week.
- Environment Canada (EC) and AAFC propose initiating a major study of ammonia emissions in Central Fraser Valley during depopulation and repopulation period.
- Disposal of test positive litter from farms becomes an issue. Overall objectives and direction about litter disposal enhanced by CFIA, PEOC and industry staff.

May 04, 2004 – DAY 77

- CFIA and AAFC meeting with National Industry Associations to discuss compensation values as well as Industry's restocking plans. Compensation continues to be an issue between CFIA and Industry.
- Epidemiological information shared with the EU. Decision made to "clean up" the backyard flocks and any remaining commercial flocks of all species within the HRR.
- USDA requires that all poultry-related vehicles travelling into US, be cleaned and disinfected. CFIA establishes and verifies C&D station in Abbotsford.
- Farm by farm survey completed. New numbers are generated which have significantly reduced the industry population totals.

May 2004

- Environment Canada (Pacific and Yukon region) begins air quality study in the Fraser Valley. Data will be collected and monitored for one year, to track emissions through the seasons and several poultry life cycles. Results will be available in late 2005 (projected).

May 5, 2004 – DAY 78

- Duck Farm #2 has tested positive on the real time matrix PCR; this farm is located in one of the 3 km zones; further lab tests are pending.
- BC broiler hatcheries complete arrangements brokered by Canadian Poultry and Egg Processors Council for supply of hatching eggs. Arrangements include accessing eggs from US using other hatcheries in Canada import arrangements.

May 6, 2004 – DAY 79

- To date, in excess of 14 million birds have been disposed of, approximately 1.2 million from positive premises and 12.8 million from negative premises. 29% remain of the original 18.9 million birds. 84% of those culled went into normal processing, 16% composted or incinerated.

May 7, 2004 – DAY 80

- Today is 10 days without any new infected premises.
- 4 USDA officials visiting BCEOC today to tour the area and observe CFIA activities. CFIA reiterates commitment to re-evaluate depopulation beyond the HRR.
- Industry meets to discuss C&D issue. Committee struck.

May 9, 2004 – DAY 82

- CFIA EIS held a two-hour meeting with Duck Farm #2 to discuss biosecurity concerns. This farm has tested Directigen positive.
- PEOC beginning to downsize as support and coordination requirements are diminished.

May 10, 2004 – DAY 83

- USDA officials visit. There was a great deal of positive interest regarding disease control measures and composting practices. California state officials request similar visit to review composting methods.
- Executive Committee decides to depopulate Duck Farm #2 as soon as possible. This will be a pre-emptive depopulation based on preliminary lab results.
- Recovery planning continues under the joint leadership of AAFC and the BCMAFF. Industry and other stakeholder input being sought on the final version of the recovery plan document.
- A full compensation information package, including Health of Animals and CAIS (AAFC) components will be ready later in the week. To date, 291 cheques have been issued for a value of $4.1 M.
- BC Egg Marketing Board Repopulation Committee established to begin orderly restocking of the CA laying bird sector.

May 11, 2004 – DAY 84

- Discussions are held with the owner of Duck Farm #2. The farm is depopulated on the basis of a

suspect H5 which was later found to be H6. School across road is closed.

- Industry committee of four supply managed commodities, the specialty sector and processing sector formed to determine how to meet a May 31st signoff deadline. Solution to cover cost – industry, processors and the producers to share costs of C&D.
- Industry Committee employs commercial cleaning crews and restoration crews to supply resources and work with farmers to try to meet May 31st deadline.

May 12, 2004 – DAY 85

- An accident involving a CFIA casual worker occurred at Duck Farm #2. Individual was hit in the head by a feed hopper and taken to hospital by ambulance. Injuries are not thought to be severe. A full OSH investigation has begun.
- The USDA has reported they found an H1 virus through serology; no virus was isolated. Therefore, no concerns yet in states of Washington or Montana.

May 13, 2004 – DAY 86

- CFIA EIS held a meeting with Duck Farm #2 to discuss the meaning of quarantine measures being taken and informed that Duck Farm #2 not infected with H5 or H7. There is strong evidence to indicate H6 which is not thought to be associated with serious animal or human illness.
- The PEOC continues to scale back at the BC EOC site, but presence remains.
- The USDA has conducted 9000 visits within the 10 mile surveillance zone south of the BC border. About 500 backyard flocks have been identified; approximately 85% are allowing the USDA to take samples.
- CFIA hosted an industry call on compensation. Industry representatives from BC were critical of the CFIA position.
- CFIA news release – "Compensation for Birds Ordered Destroyed in Avian Influenza Outbreak".

May 14, 2004 – DAY 87

- 457 compensation cheques have been issued with a value of $5.2 M.

May 17, 2004 – DAY 90

- The short version of the EPI report is completed and sent for translation.
- The Federal AAFC Minister and CFIA President travel to BC to meet with provincial and industry representatives.
- The NCFAD now has pathogenicity results confirming by genotype testing 23 farms with HPAI.
- CFIA EIS Statistics: 144 referrals; 97 investigations concluded; 56 investigations in progress; 27 situation diffusion cases facilitated; 3 AMPS for illegal movement of product and 3 AMPS warnings issued for illegal movement of birds.
- First farm passed C&D inspection.

May 18, 2004 – DAY 92

- A farm located in the 32000 block of Huntingdon Road is found positive for H7 avian influenza in ducks. This farm is located within an established 3 km zone and does not create a new zone. This brings the total number of positive farms to 42. Quarantines placed on the high risk contact farms associated with this premise.
- CFIA estimates 80% of backyard flocks in the 3km zone have been depopulated.

May 20, 2004 – DAY 94

- Of the 4 major feed mills in the Fraser Valley, 2 have now closed.

May 21, 2004 – DAY 95

- All commercial premises have been depopulated in the 3 km zones surrounding infected premises.
- Compensation numbers are being provided to the poultry industry in BC for their review. A decision about industry acceptance of the CFIA methodology and compensation amounts is expected early next week.
- A backyard flock consisting of 14 chickens is found positive, based on a matrix PCR test, for influenza A. The birds are depopulated. This brings the total number of positive backyard flocks to 11. CFIA EIS is investigating the possible use of manure on this farm from an infected commercial premise, which would constitute an illegal movement of the manure.
- CFIA having trouble getting general labourers, possibly due to a misunderstanding of the BCCDC protocol regarding the need for workers to be vaccinated with Tamiflu.

May 25, 2004 – DAY 99

- CFIA discussion was held on the importance of conducting a "post-mortem" of the avian influenza emergency response. A structure will be worked out to guide the process, including a CFIA internal review, a review internal to government and, finally, a review involving all stakeholders. It will be necessary to complete the C&D activities and the compensation file before beginning the post-mortem.
- The NEOC will be standing down this week; three key individuals will remain on the file and be relocated to another office site.

May 26, 2004 – DAY 100

- No new infected premises.
- 41 of 42 infected commercial premises have been contacted regarding C&D; 7 of these premises have completed their C&D activities. The industry target of June 1 for completion of C&D will probably not be met; at least one additional week is estimated.
- 9 of 11 infected backyard flocks have completed their C&D process. Several more commercial premises are very close to completing C&D.
- A total of 559 backyard premises have been depopulated, for an estimated total of 17,507 birds. This accounts for about 98% of the known backyard flocks within the 3 km zones.
- Vigilance being stepped up to prevent the setting of hatching eggs prior to the completion of C&D activities.
- USDA is conducting a modified third round of surveillance. So far no avian influenza has been found. They have indicated they will be standing down by June 7.

May 27, 2004 – DAY 101

- To date, 42 trading partners have taken action against Canada: 22 of these against all of Canada; 18 against live poultry and poultry products from B.C. only; and 2 (the EU and Norway) has regionalized for the Control Area Only. The May 1st enlargement of the EU (from 15 to 25 countries) increased the number of markets regionalizing for only the Control Area.
- Industry hires two private restoration firms to complete the cleaning and disinfecting of remaining infected premises.

May 28, 2004 – DAY 102

- CFIA reports that all infected birds have been depopulated and efforts have shifted to recovery phase. Movement controls on birds and bird products remain in effect.

May 31, 2004 – DAY 105

- A Japanese MAFF delegation arrived in BC to visit various AI sites and review the actions taken by CFIA.
- The EU's Food and Veterinary Office (FVO), which is responsible for conducting audits and inspections in member states and third countries, is seeking to undertake an inspection of the AI situation in Canada in early July. This may include a visit to BC.
- Only 16 out of 42 farms have passed C&D inspection. Some farms inspected 5 or 6 times without accomplishing sign-off. Industry C&D Committee now sending a commodity board inspector and veterinarian along when inspections are done. Detailed notes provided so that farmers can deal with deficiencies – positive reports from farmers.
- BC holds an open Cabinet meeting where AI is discussed.

June 1, 2004 – DAY 106

- A Public Meeting organized by private citizens held in the Fraser Valley, attended by backyard flock owners and the general public. Many concerns raised by the backyard flock owners regarding the actions of the CFIA. No CFIA staff in attendance.
- Composting piles are not heating up as planned and are being turned.

June 7, 2004 – DAY 112

- CFIA holds a second meeting to discuss the post event review process, involving Operations, LPPC and Corporate Audit. By the end of June, the scope of the review and the process to be followed will be completed.
- First placement of broiler hatching eggs in hatcheries under condition that eggs will be destroyed if AI detected prior to end of 21 day surveillance.

June 8, 2004 – DAY 113

- News Release issued announcing the compensation package for birds ordered depopulated because of AI. 30 farms signed off for C&D and new

completion date set for June 15th. Need a plan to C&D problem farm (#42). Industry applied to have this farm exempted, however CFIA did not approve an exemption.

June 9, 2004 – DAY 114

- The EU Food and Veterinary Office will be sending a delegation to BC and Ottawa early in July to review the AI situation.

June 10, 2004 – DAY 115

- Approval was received to create the new High Risk Region within the Control Area. General permits are in place describing the permissible movement of poultry and related products.
- 32 farms completed for C&D.

June 11, 2004 – DAY 116

- It was clarified that the Declaration of Freedom from HPAI can be made 90 days after the last positive flock has been depopulated.
- An information package detailing the new High Risk Region (HRR) and the various movement controls is posted on the CFIA website and shared with other federal and BC provincial government officials.
- The Mayor of Abbotsford is contacted to explain the rationale for the new HRR. Except for the HRR, farms within the control area can start to repopulate. Hatching eggs may be moved into the HRR, under general permit and set in approved hatcheries only.
- Compensation to farmers is taking a long time and some files had to be recalculated.
- CFIA announces that restocking can begin before Farm #42 is C&D'd, as long as industry continues with cleaning and gets sign-off.
- Provincial and municipal burning permits granted for problem farm. Using a curtain burner to minimize pollution. Owner of problem farm consents to destruction of barns which are torn down and fed into the curtain burner.

June 15, 2004 – DAY 120

- C&D completion date moved to June 18th. Up to 30 people working at some facilities, using pressure washers and additional water pumps and bladders to accommodate the volume.

June 16, 2004 – DAY 121

- Press clippings – BC poultry industry asks federal leaders to give $340 million; Chicken farmers get $60 million; avian flu costs BC poultry industry 1,700 jobs, $8 million/week.

June 17, 2004 – DAY 122

- 39 farms signed off for C&D.

June 18, 2004 – DAY 123

- C&D was completed on all formerly infected commercial premises in the HRR, allowing the 21-day clock to begin ticking.
- Re-stocking may begin on July 9.

June 21, 2004 – DAY 126

- CFIA assessor arrived in Abbotsford this week and is working on the joint assessment process for specialty birds.
- AI infected premises in HRR have been cleaned and disinfected.

June 28, 2004 – DAY 133

- First chicks placed on broiler farms, with conditions.

June 30, 2004 – DAY 135

- Twice weekly dead bird surveillance continuing on 10 layer farms in HRR and daily visits to previously infected premises is taking place to monitor movement controls.
- "Blitz style" surveillance is being carried out regularly on the major roadways in the Fraser Valley.
- Hatcheries set for laying bird repopulation to start July 9th.

July 5, 2004 – DAY 140

- EU auditors in Abbotsford for opening meeting. Monday-Wednesday the auditors review documentation and make on-site visits. On Monday, auditors visit AHC and speak with staff. On Thursday, auditors visit the Winnipeg lab and a poultry slaughter establishment. On Friday, the closing meeting takes place in Ottawa.
- Press clipping – "Bird flu could threaten humans worldwide…".

July 7, 2004 – DAY 142

- Of the 1123 compensation claims received by CFIA, 929 cheques have been released for a value of approx. $50 million.

July 9, 2004 – DAY 143

- The HRR that encompassed the City of Abbotsford has been officially lifted.
- Industry repopulates farms that tested negative. Infected farms are to be left empty for 60 days to avoid the need for CFIA surveillance.
- First laying birds placed in control zone outside the HRR.
- CFIA news release – "All Premises in Fraser Valley Eligible to Restock".

July 12, 2004 – DAY 146

- All composting piles have been signed off by CFIA.

July 15, 2004 – DAY 149

- BCMAFF, CFIA and Poultry Industry sponsor contract to develop and deliver Lessons Learned and Moving Forward Workshops and Forum in October.

July 26, 2004 – DAY 159

- Three farms decided to restock earlier than the 21 days after the last C&D and will be tested until mid August, 60 birds per barn per week.

July 27, 2004 – DAY 160

- ItCan authorizes final SFTS import permits to enable BC chicken processors to import 3.7M kgs of eviscerated chicken for the period from July 25th to September 18th.

July 30, 2004 – DAY 163

- First Fraser Valley chicken available to chicken processors.

August 17, 2004 – DAY 181

- US lifts all trade restrictions placed on BC.

August 18, 2004 – DAY 182

- All domestic movement restrictions placed on live birds, bird products and by-products have ceased.
- The control area to contain and eliminate avian influenza is eliminated.
- CFIA new release – "Fraser Valley Avian Influenza Response Concludes".

August 20, 2004 – DAY 184

- ItCan authorizes SFTS import permits to enable BC hatcheries processors to import 936K dozen of broiler hatching eggs for the period from September 12th to November 6th.
- The SFTS for both hatching and table eggs are fore cast to be required through to the fall of 2005 as full repopulation will not be completed until then.

August 24, 2004 – DAY 188

- AHC Director invited and attends (via teleconference) a CFIA Focus Group on Lessons Learned from Lab Response. This is part of several focus groups established by the CFIA.

August – October

- CFIA Focus groups and BCMAFF/CFIA/Industry stakeholder workshops.

October 1, 2004

- Effective today, all trade restrictions have been lifted by EU.

October 27 – 28

- Canadian Poultry Industry Forum (Avian Influenza – Lessons Learned and Moving Forward) is held in Abbotsford, British Columbia, resulting in:
- Input into enhanced biosecurity standards for the Canadian Poultry Industry.
- Input into improved National Emergency Management Procedures and enhanced Foreign Animal Disease Eradication Support Plans.
- Input into a national industry and community economic recovery program.

This document is based on a chronology provided by Theresa Iuliano of the Canadian Food Inspection Agency (CFIA).

R. Husdon/L. Elwell of Ross Husdon Management Ltd. have collected input from and edited the document based on information and dates provided by the following:

- Dr. Ron Lewis, Chief Veterinarian for BC and Director, Animal Health Centre, BCMAFF
- Dr. Victoria Bowes, Animal Health Centre, BCMAFF
- Ken Nickel and Orlando Schmidt, Resource Management Branch, BCMAFF
- Dr. Perry Kendall, Provincial Health Officer, BC Ministry of Health Services
- Jennifer McGuire, BC Ministry of Water, Land and Air Protection

- Cam Filmer and Jim Whyte, BC Provincial Emergency Program
- Dr. Danuta Skowronski and Aleina Tweed, BC Centre for Disease Control
- Alex Dabrowski and Dave Townsend, Public Affairs Bureau, BC Government
- Terri-Lou Woods, Emergency Advisor, City of Abbotsford
- George Gray, Pacific Pride Chicks
- Dr. Marvin Friesen, Clearbrook Grain & Milling Co. Ltd.
- Derek Janzen, Bordercreek Farms Ltd.
- World Health Organization website.
- Time Line Poultry Industry Council Newsletter

APPENDIX B.
Forum Agenda

Day 1 – Lessons Learned and Moving Forward

7:30 – 8:30	REGISTRATION AND CONTINENTAL BREAKFAST
8:30 – 8:45	Welcome – Mayor Mary Reeves, City of Abbotsford
8:45 – 8:50	Forum Procedures – Ross Husdon
8:50 – 9:20	Opening Remarks – Rory McAlpine; Richard Fadden; Ray Nickel
9:20 – 9:40	Chronology of BC Avian Influenza Outbreak – Ross Husdon
9:40 – 10:10	An Overview of the Avian Influenza Outbreak - Dr. Wayne Lees, Veterinary Epidemiologist, Animal Disease Surveillance Unit, CFIA
10:10 – 10:30	BREAK
10:30 – 11:00	CFIA/Health Canada – Lessons Learned, Theresa Iuliano, A/Director, Corporate Program Evaluation, CFIA; Dr. Theresa Tam, Associate Director, Immunization and Respiratory Infections Division, Public Health Agency of Canada
11:00 – 11:30	BC Provincial Agencies – Lessons Learned, Bud Graham, Assistant Deputy Minister, Resource Development and Sustainability Division, BCMAFF
11:30 – 12:00	BC Poultry Industry – Lessons Learned, Marvin Friesen, Chief Executive Officer, Clearbrook Grain & Milling
12:00 – 1:30	LUNCH SPEAKER – Dr. Susanne E. H. M. Waelen, Veterinary Policy Officer, Animal Disease Control for Poultry, Ministry of Agriculture, Nature and Food Quality, Netherlands
1:30 – 3:00	*PANEL 1 – ANIMAL/HUMAN HEALTH INTERFACE* What were the animal/human health issues? What are the appropriate protocols to safeguard human health during this type of disease outbreak?
3:00 – 3:30	BREAK
3:30 – 5:00	*PANEL 2 – BIOSECURITY* What are appropriate biosecurity standards for the poultry sector? How are these standards enforced? How could national standards be put in place?
6:00 – 6:30	RECEPTION (cash bar)
6:30 – 9:00	DINNER SPEAKER – Dr. James Young, Commissioner of Emergency Management, Province of Ontario – "Meeting the Challenge"

Day 2 – Moving Forward

7:30 – 8:00 CONTINENTAL BREAKFAST

8:00 – 8:15 Opening remarks – Honourable John van Dongen, Minister of Agriculture, Food and Fisheries and MLA for Abbotsford-Clayburn.

8:15 – 10:15 *PANEL 3 – ENHANCED EMERGENCY MANAGEMENT*
How can the lessons learned from the Avian Influenza outbreak contribute to enhanced emergency management strategies for future animal disease incidents (e.g. animal disease containment strategies, Foreign Animal Disease Eradication Support (FADES) plans)?

10:15 – 10:45 BREAK

10:45 – 12:00 *PANEL 4 – INDUSTRY AND COMMUNITY ECONOMIC RECOVERY*
What was the extent of the economic cost to the community and the industry? How well did existing support programs work? What new programs are required?

12:00 – 1:30 LUNCH SPEAKER – Dr. Max E. Coats, Deputy Executive Director – Animal Health Programs, Texas Animal Health Commission

1:30 – 2:00 Canadian Animal Health Coalition (CAHC) – Matt Taylor, Executive Director CAHC

2:00 – 3:00 Moving Forward – Ross Husdon
Summary of panel discussions, recommendations and action plans

3:00 – 4:00 Closing comments – Rory McAlpine, Richard Fadden, Ray Nickel

APPENDIX C.
Participants

A & W SERVICES OF CANADA INC.(CANADIAN RESTAURANT & FOODSERVICES ASSOCIATION)
Val Koren
North Vancouver BC

ABBOTSFORD COMMUNITY FOUNDATION
Dr. Marilyn Hamilton
Abbotsford BC

ACA CO-OP LTD.
Gerry Kennie
Kentville NS

AGRICULTURE AND AGRI-FOOD CANADA
Marg Bancroft
Burnaby BC

John Berry
Burnaby BC

Kirsti Bergmeier
Ottawa Ontario

Alexandre Gauthier
Ottawa Ontario

Gary King
Ottawa Ontario

Howard Migie
Ottawa Ontario

Keith Robinson
Ottawa Ontario

Richard Tudor Price
Ottawa Ontario

ALBERTA CHICKEN PRODUCERS
Lloyd Johnston
Edmonton Alberta

ALBERTA DEPARTMENT OF AGRICULTURE, FOOD AND RURAL DEVELOPMENT
Dr. Gerald Ollis
Edmonton Alberta

ALBERTA EGG PRODUCERS
Susan Gal
Calgary Alberta

Steve Howe
Calgary Alberta

ALBERTA HATCHING EGG PRODUCERS
Bob Smook
Edmonton Alberta

ANIMAL NUTRITION ASSOCIATION OF CANADA - BC DIVISION
Dave Dyble
Chilliwack BC

BACKYARD FARMERS ASSOCIATION
Louisa Nicholls
Langley BC

BC BROILER HATCHING EGG COMMISSION
Dave Cherniwchan
Abbotsford BC

Chris den Hertog
Chilliwack BC

Jeff Regier
Abbotsford BC

Vic Regier
Abbotsford BC

Angela Ryder
Abbotsford BC

BC BROILER HATCHING EGG PRODUCERS ASSOCIATION

Corey Braak
Abbotsford BC

Calvin Breukelman
Abbotsford BC

Paul Janzen
Abbotsford BC

Dion Wiebe
Abbotsford BC

BC CENTRE FOR DISEASE CONTROL

Larry Copeland
Vancouver BC

BC CHICKEN GROWERS' ASSOCIATION

Ted De Vries
Abbotsford BC

Vic Redekop
Abbotsford BC

Rick Thiessen
Abbotsford BC

BC CHICKEN MARKETING BOARD

Ron Kilmury
White Rock BC

Dave Martens
Abbotsford BC

Bill Vanderspek
Abbotsford BC

BC EGG MARKETING BOARD

Fred Krahn
Abbotsford BC

John Penner
Abbotsford BC

David Taylor
Abbotsford BC

Jack Vaandrager
Abbotsford BC

Ken Vanderkooi
Abbotsford BC

Peter Whitlock
Abbotsford BC

BC EGG PRODUCERS ASSOCIATION

Derek Janzen
Abbotsford BC

BC FARM INDUSTRY REVIEW BOARD

Richard Bullock
Kelowna BC

Wayne Wickens
Midway BC

Jim Collins
Victoria BC

BC MINISTRY OF AGRICULTURE, FOOD AND FISHERIES

Dr. Victoria Bowes
Abbotsford BC

Dr. Ron Lewis
Abbotsford BC

Ken Nickel
Abbotsford BC

Stewart Paulson
Abbotsford BC

Rick Van Kleeck
Abbotsford BC

Bud Graham
Victoria BC

Kathleen MacDonald-Date
Victoria BC

Rory McAlpine
Victoria BC

Harvey Sasaki
Victoria BC

Daphne Stancil
Victoria BC

Dave Townsend
Victoria BC

Honourable John van Dongen
Minister of Agriculture, Food and Fisheries and
MLA for Abbotsford-Clayburn
Victoria BC

Barb Wright
Victoria BC

BC MINISTRY OF HEALTH SERVICES
Dr. Perry Kendall
Victoria BC

BC MINISTRY OF WATER, LAND AND AIR PROTECTION
Jennifer McGuire
Surrey BC

BC NDP STANDING COMMITTEE ON AGRICULTURE
Lynn Perrin
Abbotsford BC

BC POULTRY COMMITTEE
Ray Nickel
Abbotsford BC

BC PRIMARY POULTRY PRODUCERS ASSOCIATION
Bruce Arabsky
Vancouver BC

BC PROVINCIAL EMERGENCY PROGRAM
Bob Bugslag
Victoria BC

Cam Filmer
Victoria BC

BC SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS
Shawn Eccles
Vancouver BC

BC SPECIALTY BIRD ASSOCIATION
Ken Falk
Abbotsford BC

BC SUSTAINABLE POULTRY FARMING GROUP
Kevin Chipperfield
Abbotsford BC

BC TURKEY ASSOCIATION
Garnet Etsell
Abbotsford BC

BC TURKEY MARKETING BOARD
Eric Andrew
Abbotsford BC

Les Burm
Surrey BC

Shawn Heppell
Surrey BC

CANADIAN ANIMAL HEALTH COALITION
Matt Taylor
NW Calgary Alberta

CANADIAN BROILER HATCHING EGG MARKETING AGENCY (CBHEMA)
Ed De Jong
Abbotsford BC

Jack Greydanus
Petrolia Ontario

Errol Halkai
Ottawa Ontario

Gyslain Loyer
St. Felix de Valois Quebec

Doris Ludlage
Edmonton Alberta

CANADIAN COUNCIL OF GROCERY DISTRIBUTORS (CCGD)
Brian Walton
Calgary Alberta

CANADIAN EGG MARKETING AGENCY (CEMA)

Gordon Hunter
Florenceville NB

Tim Lambert
Ottawa Ontario

Stephen Lovshin
Ottawa Ontario

Laurent Souligny
Ottawa Ontario

Maurice Richard
Quebec

CANADIAN FOOD INSPECTION AGENCY

Philip Amundson
Calgary Alberta

Dr. Judith Bosse
Ottawa Ontario

Peter Brackenridge
Ottawa Ontario

Dr. Jim Clark
Ottawa Ontario

Richard Fadden
Ottawa Ontario

Theresa Iuliano
Ottawa Ontario

Dr. Con Kiley
Burnaby BC

Paul Lackoff
Calgary Alberta

Sandra Lavigne
Ottawa Ontario

Dr. Wayne Lees
Oak Lake Manitoba

Dr. Jim McClendon
Abbotsford BC

Vance McEachern
Burnaby BC

Doug Steadman
Moncton NB

Dr. Tom Steele
Edmonton Alberta

Kris Stolarik
Ottawa Ontario

Stuart Wilson
Burnaby BC

Dr. Peter Wright
Winnipeg Manitoba

CANADIAN POULTRY AND EGG PROCESSORS COUNCIL (CPEPC)

Giuseppe Caminiti
Ottawa Ontario

Brian Dahms
Mississauga

Robin Horel
Ottawa Ontario

CANADIAN POULTRY CONSULTANTS LTD.

Dr. Stewart J. Ritchie
Abbotsford BC

CANADIAN POULTRY SERVICES INC.

Brian Herman
Mildmay Ontario

CANADIAN TURKEY MARKETING AGENCY

Phil Boyd
Mississauga Ontario

Wayne Kroeker
Mississauga Ontario

Brent Montgomery
Mississauga Ontario

CHICKEN FARMERS OF CANADA

Lisa Bishop
Ottawa Ontario

Martin Dufresne
Montreal Quebec

Mike Dungate
Ottawa Ontario

David Fuller
Ottawa Ontario

Steve Leech
Ottawa Ontario

CHICKEN FARMERS OF CANADA/CHICKEN FARMERS OF SASKATCHEWAN
Eugene Zagrodney
Rose Valley Saskatchewan

CHICKEN FARMERS OF NEW BRUNSWICK
Yvon Cyr
St. Francois NB

CHICKEN FARMERS OF ONTARIO
Urs Kressibucher
Burlington Ontario

CITY OF ABBOTSFORD
Don Beer
Abbotsford BC

Mayor Mary Reeves
Abbotsford BC

Jay Teichroeb
Abbotsford BC

CITY OF CHILLIWACK
Mayor Clint Hames
Chilliwack BC

CLEARBROOK GRAIN & MILLING CO. LTD.
Marvin Friesen
Abbotsford BC

EMERGENCY MANAGEMENT, PROVINCE OF ONTARIO
Dr. James Young
Toronto Ontario

FOOD PROCESSORS OF CANADA
Dr. Ron Wasik
Vancouver BC

FRASER HEALTH AUTHORITY
Dr. Andrew Larder
Abbotsford BC

Dave Burgess
Surrey BC

FURTHER POULTRY PROCESSORS ASSOCIATION OF CANADA (FPPAC)
Robert deValk
Ottawa Ontario

GOLDEN VALLEY FOODS LTD.
Ralph Payne
Abbotsford BC

Walt Puetz
Abbotsford BC

GRANNY'S POULTRY CO-OPERATIVE
Wayne Urbonas
Blumenort Manitoba

GREATER VANCOUVER REGIONAL DISTRICT (GVRD)
Ken Carrusca
Vancouver BC

HEALTH CANADA
Dr. Art Davies
Halifax NS

Dr. Paul Gully
Ottawa Ontario

Blair Parkhurst
Vancouver BC

JD SWEID
Blair Shier
Langley BC

K&R POULTRY LTD. (FARM FED)
Ken Huttema
Abbotsford BC

Rob Vane
Abbotsford BC

LILYDALE COOPERATIVE LTD.
Klaus Korthuis
Abbotsford BC

Keith Nash
Abbotsford BC

MANITOBA CHICKEN PRODUCERS
Fred Homann
Winnipeg Manitoba

MAPLE LEAF POULTRY
Brian Reesor
Mississauga Ontario

MAPLE LODGE FARMS
Tom Fleming
Beamsville Ontario

Tony Tavares
Norval Ontario

MEMBER OF PARLIAMENT
Randy White
Abbotsford BC

MINISTERE DE L'AGRICULTURE, DES PECHERIES ET DE L'ALIMENTATION DU QUE
Martine Dubuc
Quebec

NATIONAL FARM PRODUCTS COUNCIL
Cynthia Currie
Ottawa Ontario

Terry Hayward
Ottawa Ontario

Ron O'Connor
Ottawa Ontario

NETHERLANDS MINISTRY OF AGRICULTURE, NATURE AND FOOD QUALITY
Dr. Susanne Waelen
Veterinary Policy Officer
Animal Disease Control for Poultry
Netherlands

NEW BRUNSWICK DEPARTMENT OF AGRICULTURE, FISHERIES AND AQUACULTURE
Dr. James Goltz
Fredericton NB

NEW BRUNSWICK FARM PRODUCTS COMMISSION
Bob Goggin
Fredericton NB

NEWFOUNDLAND DEPARTMENT OF NATURAL RESOURCES
Dr. Hugh Whitney
St. John's NL

NOVA SCOTIA DEPARTMENT OF AGRICULTURE & FISHERIES
Dr. Gord Finley
Truro NS

ONTARIO MINISTRY OF AGRICULTURE AND FOOD
Don Taylor
Guelph Ontario

P & H FOODS (CPEAC)
Paul Borg
Brampton Ontario

POULTRY PLUS VETERNINARY CONSULTING LTD.
Dr. Ralph Hopkins
Abbotsford BC

PUBLIC HEALTH AGENCY OF CANADA
Dr. Theresa Tam
Ottawa Ontario

PUBLIC SAFETY & EMERGENCY PREPAREDNESS CANADA (BC/YUKON REGION)
Kevin Wallinger
Victoria BC

ROSS HUSDON MANAGEMENT LTD.
Lynn Elwell
Victoria BC

Ross Husdon
Victoria BC

SASKATCHEWAN AGRI-FOOD COUNCIL
Joy Smith
Regina Sask

SASKATCHEWAN AGRICULTURE, FOOD AND RURAL REVITALIZATION
Dr. Robert Kerr
Regina Sask

SUNRISE POULTRY PROCESSORS LTD.
Dr. Neil Ambrose
Abbotsford BC

Scott Cummings
Surrey BC

TEXAS ANIMAL HEALTH COMMISSION
Dr. Max Coats
Austin Texas

TOWNSHIP OF LANGLEY
Mayor Kurt Alberts
Langley BC

TURKEY MARKETING INDUSTRY ADVISORY COMMITTEE
Tony Greaves
Surrey BC

VANCOUVER HUMANE SOCIETY
Debra Probert
Vancouver BC

Dr. Bill Gibb
Abbotsford BC

Gerhard Goerzen
Abbotsford BC

Kelly Boonstra

[1] See "Human Illness from Avian Influenza H7N3, British Columbia, Emerging Infectious Diseases", at www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm

[2] Opening Remarks – Presentation to the Canadian Poultry Industry Forum – Mayor Mary Reeves, City of Abbotsford

[3] Chronology of BC Avian Influenza Outbreak – Presentation to the Canadian Poultry Industry Forum – Mr. Ross Husdon, Forum Coordinator and President, Ross Husdon Management Ltd.

[4] Overview: The Avian Influenza Outbreak in BC (2004) – Presentation to the Canadian Poultry Industry Forum – Dr. Wayne Lees, Veterinary Epidemiologist, Animal Disease Surveillance Unit, CFIA.

[5] CFIA Lessons Learned, Avian Influenza – Presentation to the Canadian Poultry Industry Forum – Ms. Theresa Iuliano, A/Director, Corporate program Evaluation, CFIA.

[6] Public Health Agency of Canada and Health Canada, Lessons Learned: Avian Influenza – Presentation to the Canadian Poultry Industry Forum – Dr. Theresa Tam, Associate Director, Immunization and Respiratory Infections Division, Public Health Agency of Canada.

[7] Avian Influenza, Lessons Learned, BC Provincial Agencies – Presentation to the Canadian Poultry Industry Forum – Mr. Bud Graham, Assistant Deputy Minister, Resource Development and Sustainability Division, BC Ministry of Agriculture, Food and Fisheries.

[8] BC Poultry Industry, Lessons Learned – Presentation to the Canadian Poultry Industry Forum – Mr. Marvin Friesen, Chief Executive Officer, Clearbrook Grain & Milling.

[9] Avian Influenza in the Netherlands, Outbreak 2003 – Presentation to the Canadian Poultry Industry Forum – Dr. Susanne E. H. M. Waelen, Veterinary Policy Officer, Animal Disease Control for Poultry, Ministry of Agriculture, Nature and Food Quality, Netherlands.

[10] Meeting the Challenge – Presentation to the Canadian Poultry Industry Forum – Dr. James Young, Commissioner of Emergency Management, Province of Ontario.

[11] Opening Remarks – Presentation to the Canadian Poultry Industry Forum, Honourable John Van Dongen, Minster of Agriculture, Food and Fisheries

[12] HPAI In Texas, a Review of the Outbreak and Control – Presentation to the Canadian Poultry Industry Forum, Dr. Max Coats, Deputy Executive Director, Animal Health Programs, Texas Animal Health Commission.

[13] Animal Health Management Perspectives – Presentation to the Canadian Poultry Industry Forum, Mr. Matt Taylor, Executive Director, Canadian Animal Health Coalition.

[14] Animal/Human Health Interface – Presentation to the Canadian Poultry Industry Forum – Dr. Theresa Tam, Canadian Public Health Agency.

[15] Animal/Human Health Interface – Presentation to the Canadian Poultry Industry Forum – Dr. Theresa Tam, Canadian Public Health Agency.

[16] Animal/Human Health Interface – Presentation to the Canadian Poultry Industry Forum – Dr. Judith Bosse, Canadian Food Inspection Agency

[17] Animal/Human Health Interface – Presentation to the Canadian Poultry Industry Forum – Dr. Perry Kendall, Provincial Health Officer, British Columbia Ministry of Health Services

[18] Animal/Human Health Interface – Presentation to the Canadian Poultry Industry Forum – Dr. Andrew Larder, Fraser Health Unit

[19] See "Human Illness from Avian Influenza H7N3, British Columbia, Emerging Infectious Diseases", at www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm.

[20] Avian Influenza in the Netherlands – Presentation to the Canadian Poultry Industry Forum – Dr. Susanne Waelen, Policy Officer Animal Health, Ministry of Agriculture, Nature and Food Quality, Netherlands.

[21] Presentation to the Canadian Poultry Industry Forum – Bio Security Panel – Dr. Jim Clark, Senior Staff Veterinarian, CFIA

[22] Presentation to the Canadian Poultry Industry Forum – Bio Security Panel , Ms Daphne Stancil, Assistant Deputy Minister, BC Ministry of Agriculture, Food and Fisheries

[23] Presentation to the Canadian Poultry Industry Forum – Bio Security Panel , Mr. Mike Dungate, General Manager, Chicken Farmers of Canada

[24] Presentation to the Canadian Poultry Industry Forum – Bio Security Panel , Mr. Ray Nickel, Chair British Columbia Poultry Committee and Dr. Victoria Bowes, Avian Pathologist, BC Ministry of Agriculture, Food and Fisheries

[25] Presentation to the Canadian Poultry Industry Forum – Enhanced Emergency Management Panel, Mr. Phil Amundson, Executive Director, Western Area Operations. CFIA

[26] Presentation to the Canadian Poultry Industry Forum – Enhanced Emergency Management Panel , Dr. Ron Lewis, Director Animal Health Centre and Chief Veterinarian, BC Ministry of Agriculture, Food and Fisheries

[27] Presentation to the Canadian Poultry Industry Forum – Enhanced Emergency Management Panel , Mr. Bob Bugslag, Deputy Director, BC Provincial Emergency Program

[28] Presentation to the Canadian Poultry Industry Forum – Enhanced Emergency Management Panel , Mr. Don Beer, Deputy Fire Chief, City of Abbotsford

[29] Presentation to the Canadian Poultry Industry Forum – Enhanced Emergency Management Panel , Ms Lisa Bishop, Manager of Communications, Chicken Farmers of Canada

[30] Avian Influenza – Discussion Paper Communications Perspective – Ms Lisa Bishop, Manager of Communications, Chicken Farmers of Canada

[31] Presentation to the Canadian Poultry Industry Forum – Enhanced Emergency Management Panel , Mr. Derek Janzen, Chair, BC Egg Producers' Association

[32] Presentation to the Canadian Poultry Industry Forum – Industry and Community Economic Recovery Panel, Mr. John Berry, Regional Director, Agriculture

[33] Presentation to the Canadian Poultry Industry Forum – Industry and Community Economic Recovery Panel, Mr. Jay Teichroeb, Economic Development Manager, City of Abbotsford

[34] Presentation to the Canadian Poultry Industry Forum – Industry and Community Economic Recovery Panel, Mr. Robin Horel, President and CEO, Canadian Poultry & Egg Processors Council

[35] Presentation to the Canadian Poultry Industry Forum – Industry and Community Economic Recovery Panel, Mr. Garnet Etsell, President, British Columbia Turkey Growers Association and Mr. Errol Halkai, General Manager, Canadian Broiler Hatching Egg Marketing Agency.